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# Southern California Practitioner

VOLUME XXVI.

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Founded in 1885 by Walter Lindley

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1414 SOUTH HOPE STREET,  
LOS ANGELES, CALIFORNIA  
1911

Journal of the American Medical Association

Volume 100

COLLEGE OF PHYSICIANS  
OF  
PHILADELPHIA



# INDEX TO VOL. XXVI

1911

## TITLES OF ORIGINAL ARTICLES

	Page		Page																																																																																																																																																								
Acute Chicken Breast.....	454	Inconclusiveness of Sputum Content in Pul-																																																																																																																																																									
Acute Diffuse Oedema of the Lungs.....	127	monary Tuberculosis.....	579																																																																																																																																																								
Alcoholism as a Cause of Disease.....	29	Liver Abscess With Tertian Malaria.....	191	Andreas Vesalius, the Reformer of Anat-		Los Angeles Medicine—An Historical Sketch	33	omy.....	451	Medical Fee Division.....	408	A Psychological Study.....	133	Modern Hospitals and Medical Education.....	496	Arthritis Deformans—Its Treatment With		Need of More Than One Degree in Medicine.....	485	Vaccines.....	396	Osteo-Fibroma Occupying the Tonsillar		Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442
Andreas Vesalius, the Reformer of Anat-		Los Angeles Medicine—An Historical Sketch	33	omy.....	451	Medical Fee Division.....	408	A Psychological Study.....	133	Modern Hospitals and Medical Education.....	496	Arthritis Deformans—Its Treatment With		Need of More Than One Degree in Medicine.....	485	Vaccines.....	396	Osteo-Fibroma Occupying the Tonsillar		Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442				
omy.....	451	Medical Fee Division.....	408	A Psychological Study.....	133	Modern Hospitals and Medical Education.....	496	Arthritis Deformans—Its Treatment With		Need of More Than One Degree in Medicine.....	485	Vaccines.....	396	Osteo-Fibroma Occupying the Tonsillar		Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442								
A Psychological Study.....	133	Modern Hospitals and Medical Education.....	496	Arthritis Deformans—Its Treatment With		Need of More Than One Degree in Medicine.....	485	Vaccines.....	396	Osteo-Fibroma Occupying the Tonsillar		Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442												
Arthritis Deformans—Its Treatment With		Need of More Than One Degree in Medicine.....	485	Vaccines.....	396	Osteo-Fibroma Occupying the Tonsillar		Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																
Vaccines.....	396	Osteo-Fibroma Occupying the Tonsillar		Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																				
Atonic and Spastic Constipation.....	27	Fossa.....	71	Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																								
Belladonna Treatment for Drug and Alcohol		Overeating and Its Consequences.....	192	Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																												
Addiction.....	347	Papilloma and Tubal Pregnancy.....	441	California the Desired Land.....	445	Paranoia.....	531	Cardio Spasm.....	138	Pellagra.....	289	Case of Sporotrichosis.....	525	Pelvic Findings in the Female Insane.....	303	Changing Type of General Paresis.....	350	Phthisiophobia.....	132	Climate of Northern Arizona.....	400	Physiology and Pathology of Senescence.....	241	Clinical Importance of Difference of Ar-		Puerperal Infections, Cure and Treatment.....	229	terial Pressure Between the Two Arms.....	536	Relative Cardiac Dullness as Compared		Curative Treatment of Constipation.....	535	With Orthodiagraphic Findings.....	447	Diagnosis of Duodenal Ulcer.....	61	Relation of Rabies to Public Health.....	77	Diagnosis of Fractures.....	79	Seventh Year at the Barlow Sanatorium.....	11	Diphtheria Bacillus in Relation to the		So-Called Aseptic Wound Fever With De-		Public Health.....	582	lirium.....	491	Diseases of the Gall Bladder and Its Ducts..	73	Stereoscopic X-Ray Photography.....	357	Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																
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Ectopic Pregnancy.....	447	Sterilized Spinal Fluid Subcutaneously Re-		Effects of Chronic Cystitis on the Heart.....	117	injected for Tubercular Meningitis.....	298	Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																								
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Emergency Surgery of the Hand.....	527	Studies of Malaria in Panama—Pernicious		Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																
Extra Uterine Pregnancy.....	445-587	Malarial Fever.....	595	Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																				
Finsen Institute—1910.....	25	Submaxillary Infection—Ludwig's Angina.....	1	Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																								
Fracture of Skull With Intracranial In-		Surgery of the Palate.....	355	juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																												
juries.....	173	Surgical Treatment of Duodenal Ulcer.....	66	Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																
Gall Stones.....	446	The Dawn of Medicine—Pre-Hippocratic		Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																				
Gastric Carcinoma.....	4	Period.....	245	Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																								
Hemorrhagic Pancreatitis.....	442	The German Clinics.....	21	History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																												
History of Medicine From Hippocrates to		Three Cases in the Practice of an Aurist.....	186	Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																
Galen.....	359	Tonsillotomy versus Tonsillectomy.....	18	History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																				
History of Medicine—Hippocratic Period.....	309	Trachoma.....	488	History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																								
History of Medicine Period of Galen.....	402	Treatment of Acute Pelvic Inflammations.....	405	Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																												
Hookworm Disease in Arizona.....	490	Treatment of Disease by Spinal Concussion,		Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																																
Hygienic Advantages of the Automobile		etc.....	228	Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																																				
Over the Horse.....	492	Very Young Fetus.....	442																																																																																																																																																								

## AUTHORS OF ORIGINAL ARTICLES

	Page		Page
Allen, Charles Lewis.....	245-340-442	Davidson, Anstruther.....	525
Babcock, Robert H.....	117	Dock, George.....	289
Bacon, John E.....	527	Edwards, William A.....	66
Ballard, Walter J.....	445	Fleming, E. W.....	186
Beckett, W. W.....	445	Flinn, John W.....	400
Black, Stanley P.....	77	Forline, Hamilton.....	133
Boggs, Walter D.....	405-500	Gordon, H. S.....	27
Brem, Walter V.....	595	Hall, Ernest A.....	303
Brewer, Isaac W.....	132	Herbert, Henry.....	391
Brophy, T. W.....	355	Holmes, Christian R.....	496
Brown, Rexwald.....	491	Holt, W. A.....	587
Calder, Daniel H.....	531	Huggins, W. L.....	8-447
Chcate, Joseph Lynn.....	447	Hughes, H. A.....	29
Cunningham, R. L.....	11-359-579	Jones, A. Halden.....	582

APR 16 1912  
81613

	Page		Page
Kelsey, A. L.	71	Reed, Boardman	192-485-535
Leonard, E. L.	445	Roblee, W. W.	1
Lindley, Walter	33-451-492	Shine, Francis E.	490
Lissner, Henry H.	21-298	Smith, Bertrand	309
MacDonald, H. E.	241	Sollaud, Albert	25-357
Marxmuller, H. G.	446	Speer, Grant G.	442
Millspaugh, W. P.	4	Steinberg, James	454
Montgomery, C. H.	18	Stroud, H. E.	238
Moore, Clarence	61-128	Thomas, C. P.	73-408
Moore, M. L.	441	Towner, O. I.	191
Moore, Ross	347	Watkins, Thomas J.	229
O'Neill, Bernard J.	79	Whitman, C. H.	402
Perkins, J. S.	488	Yount, C. E.	127
Pomeroy, J. L.	536	Zerfing, Chas. E.	173

## EDITORIALS

	Page		Page
Academy of Medicine and Harvard Alumni at the A. M. A.	317	Entertainment A. M. A. Subscription	413
A. M. A. and the Panama Canal	145	Ergot Standardization	508
A. M. A. in Los Angeles	258	Frank P. Foster	459
A. M. A. Presidential Election	316	History of Medicine	549
A. M. A. Retrospective	367	Loma Linda Medical Conference	371
American Academy of Medicine	42-151	Los Angeles College of Medicine	314
American Proctologic Society	268	Los Angeles County Medical Association	37
Arizona Medical Association in Los Angeles	40	Los Angeles County Milk Commission	44
Arizona Medical Association	266	Los Angeles Meeting A.M.A.	38-87-369
A Well-Merited Honor	460	New California Licentiates	269
Barlow Medical Library	39-83	Non-Surgical Treatment of Duodenal Ulcer	85
California State Board of Medical Exam- iners	41-196-410	Pernicious Anaemia	82
California State Medical Society	264	Phthisiophobia	313
Causes of General Paresis	148	Polio-myelitis	200
Chariot Races for the A. M. A.	267	Population (1910) of Cities	146
Christian Science	90-201-262-318-372-413-460-506	Prolongation of Life	505
Death of Dr. Horace G. Cates	204	Race Suicide and Eugenics	198
Death of Dr. G. B. Davis	149	San Diego Physicians and the Red Cross	270
Death of Dr. McDonnell of Arizona	315	Smallpox and Vaccination in Central Amer- ica, South America and Cuba	36
Dioradin	548	Southern California Medical Society	45
Dog or the Child	598	State Psychopathic Hospital	83
Dr. Geo. L. Cole at Bad Nauheim	411	Typhoid Fly	547
Dr. Hibbard's Tragical Death	199	University College Hospital	312
Dr. August Schafer	545	University of Southern California	370
Drug Value of Alcohol	43	Vasectomy and Eugenics	261
Enteroptosis	150	Victory of Dr. Rea Smith	81
		Walter Wyman	597

## BOOK REVIEWS

	Page		Page
Abbott's Hydrotherapy	329	Campbell's Surgical Anatomy	383
Abrams'-The Blues	283	Cardio-Vascular Diseases	608
Abt and Ridlon's Pediatrics and Orthopedic Surgery	105	Cohnheim's Diseases Digestive Canal	602
Aiken's Hospital Management	382	Congress American Physicians and Sur- geons-Vol. VIII	102
A. M. A. New and Non-Official Remedies	284	Cotton's Dislocations and Joint Fractures	52
Ander's Medical Diagnosis	467	Craig's Parasitic Amoebae of Man	609
Ander's Practice of Medicine	610	Crosen's Diagnosis and Treatment of Women	98
Bailey and Miller's Embryology	609	Crother's Inebriety	211
Bandler's Vaginal Coeliotomy	516	Cushing's Pharmacology and Therapeutics	101
Barnhill and Wales' Otolaryngology	474	Delafield and Prudden's Pathology	606
Baum & Moyer's Skin and Venereal Dis- eases	106	de Lee and Stowe's Obstetrics	469
Beck's Bismuth Paste in Chronic Suppura- tions	156	Dorland's American Illustrated Medical Dic- tionary	603
Bier's Hyperemia	385	Dorland's American Pocket Medical Dic- tionary	475
Hillings & Salisbury General Medicine	568	Dudley and Bachele's Gynecology	470
Blair's Public Hygiene	382	Eberhart's High Frequency Currents	331
Bosnaquets Spirochaetes	432	Eden's Gynecology	381
Butler, Favill and Bridges' Therapeutics, Preventive Medicine and Climatology	106	Ely's Joint Tuberculosis	471
Cables' Golden Rules of Diagnosis and Treatment of Diseases	161	Ergot Standardization	508
Cabot's Differential Diagnosis	282	Fracastor's Syphilis	467
Campbell and Cropper's Induced Cell Re- production and Cancer	100	Galbraith's Personal Hygiene and Physical Training for Women	232
		Gleason's Nose, Throat and Ear	161



	Page		Page
Goepp's State Board Questions.....	329	Munro's Suggestive Therapeutics .....	470
Gould's Pocket Medical Dictionary.....	570	Murphy's General Surgery .....	569
Greene's Medical Diagnosis.....	102	Musser's Practical Treatment.....	280
Griffith's Care of the Body.....	385	Musser's Practical Treatment.....	326
Hare's Modern Management of Disease.....	162	Oertel's Anatomic Histologic Processes of	
Hare's Treatment of Disease With Medicinal		Bright's Disease .....	327
and Non-Medicinal Remedies .....	55	Pattee's Diet in Disease .....	211
Hawk's Physiological Chemistry.....	55	Paul's Nursing in Acute Infectious Fevers.....	612
Herman's Difficult Labor.....	97	Pilcher's Cystoscopy .....	513
Hinsdale's Hydrotherapy .....	210	Pilcher Hospital Year Book.....	385
Hirst's Obstetrics .....	386	Pyle's Personal Hygiene.....	108
Holland's Medical Chemistry and Toxi-		Reed's Diseases of the Stomach and In-	
cology .....	611	testines .....	475
Howard's Typhoid Fly .....	547	Ritchie's Primer of Hygiene.....	103
Howell's Physiology .....	607	Rurah's Diseases of Infants and Children.....	432
Hutchinson's Food and Dietetics.....	330	Sahli's Diagnostic Methods of Examination.....	328
Hyde's Diseases of the Skin.....	105	Sanitary Conference of the American Re-	
International Clinics .....	101-379-473	publics .....	36
Jeffery's Diseases of China.....	54	Sewage Pollution of Interstate and Inter-	
Jordan's Bacteriology .....	327	national Waters .....	569
Kerr's Care and Training of Children.....	101	Sisson's Veterinary Anatomy.....	384
King's Obstetrics .....	432	Slade's Physical Examination and Diag-	
Knopf's Tuberculosis .....	385	nostic Anatomy .....	379
Kyle's Diseases of the Ear, Nose, and		Smith's What To Eat and Why.....	384
Throat .....	381	Squire's Cystoscopy .....	161
Lea and Febiger's Modern Treatment.....	333	Stelwagon's Diseases of the Skin.....	278
Lea & Febiger's Practitioner's Visiting List.....	612	Stevens' Practice of Medicine.....	611
Lindsay and Blakeston's Physician's Visit-		Taylor's Case Histories in Neurology.....	61
ing List .....	54	Todd's Clinical Diagnosis.....	38
Lippincott's New Medical Dictionary.....	570	Transactions Sanitary Conference American	
Little's Anatomy .....	571	Republics .....	210
Malsbary's Diagnosis of Syphilis .....	283	Tuley's Obstetrical Nursing .....	101
Marie's Pellagra .....	159	Tuttle's Public Health .....	98
Mayo Clinic Collected Papers.....	380	Uncinariasis in Porto Rico.....	604
McFarland's Biology .....	210	Vecki's Sexual Diseases .....	162
Medical Record Visiting List.....	610	Ware's Plaster of Paris and How to Use It.....	571
Merck's Materia Medica .....	432	Waugh and Abbott's Alkaloidal Thera-	
Morris' Surgical Essays .....	282	peutics .....	468
Morrow's Diagnostic Therapeutic Technic.....	605	Willard's Surgery of Childhood.....	157
Morse's Case Histories in Pediatrics.....	284	Wolbarst's Gonorrhea .....	385
Mulford's Bactirins .....	570	Wood and Andrew's Eye, Ear, Nose and	
Mumford's Practice of Surgery.....	329	Throat .....	386
Mumford's Surgical Problems.....	468	Zenner's Sexual Physiology and Hygiene.....	53

## GENERAL INDEX

	Page		Page
Abbott, W. C. ....	377	Appendicitis, Etiology of.....	615
Academy of Medicine.....	317	Appendicitis With Vesical Symptoms.....	614
Acne .....	116	Ap John, Henri.....	376
Adams, John Quincy, Death of.....	323	Ap Lynne Guy E.....	463
Adams-Stokes, Syndrome.....	566	Applicants for State License.....	465
Adenoid Operation—Secondary Hemorrhage.....	186	Arizona Board of Medical Examiners.....	430
Ainley, F. C.....	549	Arizona, Case of Hook Worm in.....	490
Alcoholic and Drug Addiction.....	348	Arizona Medical Association.....	420
Alcohol Increased Use.....	577	Arizona Medical Association—Delegates.....	428
Alcohol in Practice .....	95	Arizona Medical Association, Officers of.....	429
Alcohol—Its Drug Value.....	43	Arizona Medical Examiners .....	551
Alcoholism Cause of Disease.....	29	Arrowhead Hot Springs .....	589
Alden, Eliot .....	47-317	Arterial Pressure .....	477
Allan, J. T. M. ....	83	Arterial Pressure (Differences in) Between	
Allen, Charles Lewis.....	245-350-442-549	the Two Arms .....	536
Altadena Hygienic Institute.....	47	Ascites, Chylous and Pseudo-chylous.....	221
Alvarez, Luis F.....	83	"Aseptic Wound Fever".....	491
American Academy of Medicine.....	42	Asexualization in New Jersey.....	322
American Academy of Medicine.....	151	Atwood, H. A.....	48
A. M. A. Entertainment Fund.....	413	Angio-Cholecystitis Following Typhoid	
A. M. A. and the Panama Canal.....	146	Fever .....	340
A. M. A. at Redlands.....	376	Auricular Fibrillation .....	566
A. M. A. at Riverside.....	377	Austin, Wm. H., Death of.....	47
A. M. A. in Los Angeles.....	96-156-195-209-258	Automobile, Hygienic Advantages Over	
A. M. A. in Pasadena.....	208	Horse .....	492
A. M. A. Los Angeles Meeting.....	87	Avey, John L. ....	51-95-272
American Medical Editors' Association.....	275-321-376	Avery, Ralph .....	418
A. M. A. Presidential Election.....	316	Aviation Hospital .....	50
A. M. A. Retrospective.....	367	Babcock, Robert H.....	96-117
America's First Hospital.....	114	Babcock, Robert Hall (portrait).....	117
Anarchist, Definition of.....	204	Babcock, Robert H., Under the Knife.....	377
Anterior Poliomyelitis .....	563	Bacon, John E.....	47-420-510-527
Anti-Typhoid Vaccine .....	567	Bacteria, Photogenic .....	466
		Bad, Nauheim .....	411





	Page		Page
Degree in Medicine, Need of More Than One.....	485	Genius and Heredity .....	440
Deaths in the Streets.....	458	German Clinics .....	31
Death of Dr. T. B. Davis.....	119	Germ Layers in Man.....	609
Death of Dr. McDonnell.....	315	Gibbert, Sir W. S., A Philosopher.....	378
Death of Physicians in the U. S., 1910.....	386	Gila County Medical Society.....	47
Death-Rate of Los Angeles.....	511	Godfrey, E. L. B. ....	54-204
de Bey, H. B. ....	271	Godin, Arthur .....	36
Deering, Walter E. ....	321	Goodfellow, Geo E., Death of.....	59
Detting, Frank E. ....	418	Goodhue, E. S. ....	551
Diabetes Mellitus, Hyper-Secretion of the Supra-Renal Bodies in .....	618	Gordon, H. S. ....	16-323
Digipuratum in Heart Disease.....	47	Gorgas, Col. Wm. C. ....	601
Dilworth, W. C. ....	83	Gradler, Henry, Death of.....	70
Dionadin .....	548	Graham, H. Watson .....	271
Diphtheria Bacillus, Its Relation to Public Health .....	582	Grenfell, Wilfred T. ....	552
Diphtheria Mortality Reduced .....	113	Griffin, John S., Sketch of.....	207
Dock, George .....	289	Grundy, George .....	375
Dodsworth, R. M. ....	510	Guy de Chauliac's Motto .....	80
Downs, Alfred J. ....	83	Gynecology—Presumptive Diagnosis .....	509
Doyle, G. P. ....	599	Hagadorn, M. E. ....	83
Dr. Hibbard's Tragic Death.....	199	Hall, Ernest A. ....	271-303
Drainage for Ascites .....	339	Hall, J. Harvey, Death of.....	418
Dwyer, John L. ....	523	Hamilton, G. V. ....	46
Dudley, W. H. ....	45	Hanlon, P. W. ....	126
Dunfield, Wm. ....	83-96-121	Hastings Hill .....	83-270-317
Duncan, Rex B. ....	599	Hart, Lasher .....	527
Duodenal Ulcer, Diagnosis of.....	61	Harvard Alumnae at the A. M. A. ....	317
Duodenal Ulcer, Non-Surgical Treatment... 85		Harvey's Announcement of the Circulation.....	336
Duodenal Ulcer, Surgical Treatment of..... 66		Harvey, C. W. ....	94
Ectopic Pregnancy .....	417	Harvey, L. V. ....	599
Edelman, D. W. ....	413	Hayden, Benjamin F. ....	599
Edwards, Wm A. ....	15-16-46-83-274-322-368-375	Haynes, John R. ....	83-376-413
Ehrlich, Paul, Sketch of.....	257	Hawley, Charles F. ....	130
Elliot, C. C. ....	599	Hearne, J. C. ....	93
Ellis, H. Bert .....	37-83-195-317-368	Heart Kinematographie .....	616
Ellis, S. A. ....	152	Heart Stimulants in Fever .....	478
Ellis, W. C. ....	426	Hectine Compared with Salvarsan.....	338
Emergency Surgery of Hand.....	527	Hemorrhage of Uterus .....	576
End to End Anastomosis of Blood Vessels..... 610		Heber's Books .....	576
Euphthalmine Hydrochloride .....	170	Hebert, Henry .....	391
Enteroptosis .....	150	Herter, Christian Archibald .....	50
Epstein, Ephraim M. ....	553	Hickman, A. R. ....	550
Ergot Standardization .....	508	Hilliard, C. G. ....	271
Ethyl Chloride, A Warning.....	16	Hippocratic Period .....	599
Eugenics .....	198-261	Hippocrates to Galen .....	559
Evolution Discontinued .....	514	History of Medicine .....	549
Extra-Uterine Pregnancy .....	445-587	Hitchcock, W. W. ....	126-325-417
Face Presentation Changed to Vortex.....	98	Holland, J. H. ....	600
Fager, John Franklin, Death of.....	375	Hollister, John C. ....	47-169-210
Ferbert, John C. ....	83-96	Hollister, John Hamilton, Death of.....	610
Fetus Very Young .....	412	Holt, W. A. ....	510-587
Field, Cyrus M. ....	509	Holt, W. L. ....	464
Fielding, G. A. ....	418-598	Homeopaths Oppose the League of Free- dom .....	582
Fifty Thousand for Laboratory .....	165	Homeopathic Society of Southern California.....	551
Finkay, Theodore G. ....	94	Hockman in Porto Rico .....	591
Finsen Institution .....	25	Horton, E. L. ....	509
Fleming, Ernest W. ....	72-186-271-317	Hudson, Elsa .....	294
Flies—Away With Them .....	111	Houghton, A. D. ....	511
Flinn, John W. ....	95-316-400-420	Howard, H. W. ....	83
Flint, Wm. H. ....	48	Hoyt, Henry F. ....	550
Flxkilling .....	172	Huffman, Ira E. ....	46
Follanshee, Elizabeth A. ....	376	Huggins, W. L. ....	8-447
Fortine, Hamilton .....	147-133	Hughes, H. A. ....	29
Foss, John W. ....	420	Hunt, Morris P., Death of.....	599
Foster, Frank P., Death of.....	159	Hutchinson Woods Versus the Kindergarten.....	377
Fractures, Diagnosis of .....	79	Hydrophobia Attacks Coyotes .....	576
Fraxator Hieronymus .....	167	Hydrophobia Skunk .....	419
Franklin, J. H. ....	152	Hydrophobia Skunk Bite .....	524
Fraternities .....	47	Immunity .....	233
Frier John's Nose .....	574	Immunity in Tuberculosis .....	166
Frick, Donald J. ....	46-83-513-565	Infantile Paralysis .....	164
Fulton, Dudley .....	16-83-214-177-550-602	Infections in Minor Surgery .....	8
Gall Bladder and Ducts, Diseases and Treatment .....	73	Influence of Overfeeding on Mind.....	330
Gall Stones .....	446	Iodides in High Blood Pressure.....	478
Garden Nurse .....	522	Iowa State Board of Health.....	274
Gastro-Intestinal Radiography .....	464	Ipecac in Amoebiasis.....	217
Gauze Left in Abdomen.....	509	Intravesical Segregation Versus Ureteral Catheterization .....	218
General Anesthesia .....	565	Jacobs, W. R. ....	509
General Paralysis, Cause of .....	148	Jones, J. E. ....	47
General Paresis, Changing Type.....	350	Japan Health Association .....	325
Genius .....	388	Jeffs, M. D. W. ....	568
		Jennison, J. E. ....	323
		Johnson, E. J. ....	321
		Johnson, Milbank .....	83





	Page		Page
Open-Air Schools for Tuberculous Children.....	311	Pyloric Stenosis in Infancy .....	559
Open-Air School Rooms.....	510	Questions, California State Board of Ex-	
Opsonins.....	233	aminers.....	223-433-620
Orange County Medical Association.....	273-323	Quinine and Urea Hydrochloride as a Local	
Orbison, Thos. J. ....	53	Anesthetic.....	222
O'Reilly, Thomas W. ....	598	Quint, Sumner J. ....	152-322
Orthodiagraphic Findings.....	447	Intra-Cranial Tumors.....	166
Osteo-Fibroma in Tonsillar Fossa.....	71	Rabies in Los Angeles.....	464
Osteopaths Before State Board.....	96	Rabies—Relation to Public Health.....	77
Otis, Harrison Gray.....	52	Race Suicide and Eugenics.....	198
Outwater, Samuel.....	375	Rea Smith, Victory of.....	82
Overfeeding.....	192	Red Cross in San Diego.....	271
Pacific Hospital.....	322	Reed, Alfred C. ....	509
Pahl, P. C. H. ....	48-83-265-272	Reed, Boardman.....	192-485-535-599
Palate, Surgery of.....	355	Remondino, P. C. ....	551
Palette, Edward M. ....	272	Resection of Stomach.....	475
Palmer, Byron.....	511	Reynolds, Robert.....	512
Palmer, Edwin O. ....	417	Reynolds, Cecil E. ....	511-551
Palmer, E. Payne.....	153-417	Reynolds, Marion S. ....	511
Pancreatitis, Hemorrhagic.....	442	Reynolds, Ralph W. ....	94-271
Pancreatitis, Sub-Acute Hemorrhagic.....	563	Rice, Newton J. ....	321
Paranoia.....	531	Rich, Clayton L., Death of.....	375
Park, C. C. ....	95	Richardson, W. W. ....	37-46-83-182
Parker, A. S. ....	271	Ridiculing Doctors.....	465
Parker, Ida.....	323	Riggs, Elmer Leroy.....	550
Pasadena Chariot Races.....	267	Riverside County Medical Society.....	48-376-600
Pasadena Medical Society.....	47	Roberts, W. Haines.....	49-83-317
Pascor, Elmer R. ....	270	Robinson, B. ....	598
Patients Own Serous Exudates and Trans-		Robles, W. W. ....	1-45-539
udates.....	479	Rogers, A. C. ....	83-464
Pellagra.....	289	Rogers, F. L. ....	48
Pellagra Caused by Corn.....	159	Rogers, Thomas L. ....	93-272-321
Pelvic Findings in Female Insane.....	303	Roosevelt Dam.....	276
Pelvic Inflammation, Treatment of.....	405	Rosen, R. S. Reagent.....	550
Peritonitis Diffuse.....	569	Rosenberger, H. G. ....	152
Perkins, J. S. ....	488	Ross, Karl F. ....	511
Pernicious Anaemia.....	82-506	Ross, W. W. ....	150
Pernicious Malarial Fever.....	505	Rotwell, Wm. T. ....	511-532
Peptic Affections.....	558	Rowan, A. H. ....	509
Peres, Luis H. ....	321	Roy, D. F. ....	153
Phaeocytic Action.....	619	Rules of Life.....	222
Phthisiophobia.....	132-313	Ryan, Walter Owen, Suicide of.....	511
Physicians and Drug Habitués.....	464	Sacro-Coccygeal Tumor.....	219
Physicians in Legislature.....	50	Salvarsan.....	163-213-379
Physicians in Los Angeles.....	109	Salvarsan in Malaria.....	212
Pillsbury, E. S. Death of.....	465	Salvarsan in the Urine.....	555
Plague.....	168	Salvarsan Therapy.....	165
Plague in Ground Squirrels.....	324	Salvarsan Results in Death.....	556
Plath, Otto E. ....	439	San Francisco at A. M. A. ....	375
Pneumothorax.....	110	San Diego Board of Health.....	322
Pneumothorax, Induced.....	212	San Diego County Medical Society.....	324
Poisoning Ground Squirrels.....	344	San Diego Free Clinic.....	465
Poison Law of California.....	551	San Diego Meat Inspection.....	552
Poliomyelitis.....	200	San Diego Physicians' Club.....	323
Poliomyelitis in Palo Alto.....	599	San Diego's Red Cross.....	95
Poliomyelitis Serum.....	568	Santa Barbara County Medical Society.....	47-95
Poliomyelitis, Treatment of.....	114	Santa Filomeha.....	524
Pollard, J. W. ....	270-509	Savage, Philip M. ....	271-419-550
Pomeroy, J. L. ....	464-536	Sawyer, E. O. ....	48
Population of Cities—Census of 1910.....	146	Schafer, Augustus.....	545
Potts, Anna M. Longshore.....	550	Schermann, A. H. ....	420
Potts, R. D. ....	46	School Children's Defects.....	48
Pottenger, F. M. ....	83-376-466-542-568	Schultz, R. C., Death of.....	94
Pottenger, J. E. ....	83	Schwuchow, Walter B. ....	598
Powers, L. M. ....	44-96-375-584	Scott, Jr., A. J. ....	413
Powers, W. B. ....	47-153	Sergeants, G. A. ....	413
Prayer by a Great Doctor.....	226	Seaside Hospital Association.....	48
Prayer for Children.....	112	Sellery, E. C. ....	272
Prentice, Geo. L. ....	204	Semilunar Bone, Dislocation of.....	564
Preserving Rubber Gloves.....	276	Senescence, Its Physiology and Pathology.....	241
Prices for Call.....	297	Senility.....	418
Procreation Bill in Iowa.....	342	Seymour, Eleanor.....	83-376-511
Proctologic Society.....	268	Sex Determination.....	373
Prolongation of Life.....	505	Shepard, Charles A. ....	466-510-552
Psoriasis Treatment of.....	466	Sherr, Henry H. ....	48-83
Psychopathic Building, Los Angeles County.....	532	Sherry, Henry.....	375-465
Psychopathic Hospital.....	83	Shine, Francis E. ....	272-423-490-509-510-550-553
Psychological Study.....	133	Sidis Boris About Precocious Mathematician.....	324
Psychological Ward at Los Angeles County		Simpson, Sir James Young.....	598
Hospital.....	511	Simpson, Wm. I. ....	417-429
Public Health Addresses During A.M.A.....	206	"606" in Malaria.....	610
Public Health—Relation of Diphtheria Ba-		Skidography of the Ureter.....	615
cillus to.....	582	Skull, Fracture of.....	174
Puerperal Infections—Cause and Treatment.....	229	Sleeper, Karl.....	48
Pulmonary Tuberculosis—Inconclusiveness of		Smallpox and Vaccination in Central Amer-	
Sputum Content.....	579	ica, South America and Cuba.....	36



# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, JANUARY, 1911.

No. 1

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## SUBMAXILLARY INFECTION. LUDWIG'S ANGINA.\*

BY W. W. ROBLEE, M.D., RIVERSIDE, CALIFORNIA.

Cases of submaxillary infection are of rather frequent occurrence, most of them give but little trouble and are soon well, occasionally, however, a case of such virulence occurs that it behooves the physician to watch all these infections very carefully lest he fail to recognize these virulent ones until too late to save their lives. It was my misfortune to have two deaths in my practice during the month of July, 1910, from submaxillary infection. I had seen a great many cases of swollen and sensitive glands in the submaxillary region, some had required external incision and drainage, but the great majority had subsided very promptly under treatment, either by the ice bag or hot compresses. The two children that died in July were taken ill within two days of each other and their loss was a severe defeat. I desire to report four cases as follows:

J. C.—Female, aged six; healthy little French girl, came complaining of pain and swelling under angle of jaw; temperature 100; swelling does

not fluctuate; ordered hot compresses for several hours each day; the condition gradually improved and the child was well in a week.

H. W.—Female, aged four; history same as case No. 1, but fluctuation developed on the fourth day; incision was made through skin and fascia; free drainage of pus occurred and the child made an uneventful recovery in ten days.

W. R.—Indian boy at Sherman Institute. Previous history not known; initial history of illness same as case No. 1; mass was very hard but edematous, on second day unable to open mouth more than one-third normal distance; speech and deglutition difficult; fever 102-104, heart action rapid; dyspnoea developed on third day; operation on third day; incision over submaxillary triangle and it was not until a careful dissection was made deep into the sublingual tissues that a small quantity of foul-smelling pus was found and evacuated. The swelling of the tissues of the mouth continued to increase, the dyspnoea and

\*Read before the Southern California Medical Society, Los Angeles, December 8, 1910.



heart weakness became worse and the boy died early in the fourth day. Culture showed a pure streptococcus infection. This, I consider a true case of Ludwig's Angina.

J. G.—Aged five, son of a clergyman; initial symptoms about as in the other cases. Incision was made over the swelling in the submaxillary triangle on the fourth day and quite a quantity of pus evacuated. Hot bichloride dressings were used but the constitutional and local symptoms did not subside; a second operation was done one week later and another pocket of pus lower in the neck evacuated; shortly after this, he complained of pain in the right thigh but no pus focus developed; a few days later, a metastatic abscess developed in the left foot; this was incised and drained, the boy continued to be very septic and gradually the muscles of the lower part of the abdomen became red, then yellowish black and the little fellow died. This case we worked over desperately but were unable to check the progress of the disease.

Here we have four children, all previously healthy, developing an inflammation in the submaxillary region, each one showing an added degree of severity, and to my mind all are to be classified alike, the only difference being in the severity and extension of the inflammation. Ludwig's Angina, of which Case No. 3 is a typical example, is not a common affection. It was described by Ludwig in 1826 and by him considered a morbid entity. Various other authors have given opinions upon the subject, most of which agreed with Ludwig's idea until Simon, in 1895, advanced the theory which seems to me to be very clearly proven in my series of cases, that Ludwig's Angina is not in itself an entity but that all septic infections in this region should be classed together, the so-called Ludwig's Angina being but one phase, and that the most serious

one, in the progress of submaxillary sepsis.

#### **Etiology:**

It is probable that the primary focus is in some lesion of the mouth, such as a carious tooth, tonsillitis, herpetic ulcer or abrasion, although in looking over the literature on this subject, I find that the point of infection has frequently been very indefinitely determined. This infection is then transferred along the lymphatic vessels to the submaxillary chain of glands, where, as our anatomical study will show the infection is confined and it can only travel along certain well-defined connective tissue planes.

#### **Anatomy:**

Thomas, in *Annals of Surgery*, March, '08, gives a complete study of the anatomy of this region and my description is culled from his article.

The muscular floor of the mouth is formed by the two mylo-hyoid muscles which fuse in the median raphe; back of this are the constrictor muscles of the pharynx. Between the posterior border of the mylo-hyoid muscles and the middle constrictor is an opening which extends from the hyoid bone upwards and backwards to the inner side of the lower jaw near its angle. Through this opening passes the hyoglossus muscle, the glosso-pharyngeal and hypoglossal nerves, lingual artery and vein and styloglossus muscle, but the greater part of the opening is filled by the submaxillary gland, which, therefore, forms part of the floor of the mouth and lies in close contact with the root of the tongue and the posterior part of the sublingual gland. The connective tissue which lines the submaxillary fossa therefore, at this point, becomes continuous with that on the floor of the mouth and throat. Another anatomical condition, which to my mind is of great importance, is the position and density of the deep cervical fascia. In this region, this fascia,

termed the stylo-maxillary ligament, is a very dense resistant membrane which forms a stout partition between the superficial and deep portions of the neck. This fascia has not been given sufficient consideration in previous articles upon this subject.

#### Pathology:

Bearing the above anatomical considerations in mind, it is very easy to trace the course of the infection in these cases. A patient has a sore or infection about the mouth, some of this infectious material is carried by the lymphatic vessels to the submaxillary chain of lymph glands; if the virulence is of sufficient power the infection soon passes from the glands into the submaxillary tissues, it is hemmed in externally by the dense cervical fascia and unless a prompt outlet is given by incision, the infective process is forced upward through the opening between the mylo-hyoid muscle and middle pharyngeal constrictor, the tongue and tissues of the floor of the mouth become swollen and oedematous and as the infection travels deeper into the throat, oedema of the glottis with its alarming symptoms supervenes. One other point that has been debated very strenuously is whether death in these cases is due to toxæmia or to interference with respiration. As one considers the anatomy of this region, the wonder is not that an occasional case causes death, but rather that so few become serious. Case No. 3, reported in this paper, reminded me somewhat of laryngeal diphtheria shortly before death and death was due, in my judgment, to toxæmia and not to the dyspnoea. His dyspnoea was not extreme, but he did have a very rapid, weak pulse and marked prostration. Intubation was impossible and it seemed unwise for me to follow the operation for drainage with a tracheotomy when the

toxic symptoms so far outweighed the dyspnoea in importance. I have noticed the same thing frequently in laryngeal diphtheria. Intubation and tracheotomy, in many cases, give quick relief, but in the septic depressed cases, the opening up of the air passages has no favorable influence upon the cause of the illness and often hastens death.

#### Prognosis:

When early incision is practiced, nearly all of these cases recover. If the infection spreads to the sublingual region and the throat, and Ludwig's Angina develops, fully 50% die. A clear appreciation of the pathology of this condition and early surgical interference will save many cases that otherwise would certainly die.

#### Treatment:

An ice bag may be employed locally in mild cases, but where there is any pus thought to be present, an early free external incision should be employed. This oftentimes has to be very deep, extending well into the sublingual tissues before the infective focus is found. In some cases where there is oedema of the floor of the mouth, this may be incised and where the dyspnoea is at all serious, a tracheotomy may be required. The heart should be watched and supporting measures instituted early.

#### Summary:

1. Submaxillary infections, including the so-called Ludwigs' Angina, are pathologically all a part of the same process and not separate entities.
2. The infection travels along definite connective tissue planes and its progress is analogous to that seen in sepsis beneath the palmar fascia of the hand or the plantar fascia in the foot.
3. All these infections are serious and should be carefully watched. Many of them get well rapidly, but



when the infection once reaches the mouth and throat, it is one of the most serious conditions we have to deal with, fully 30% dying.

4. Early external incision should be made in all cases where pus is suspected or the symptoms are at all severe.

## THE PRESENT STATUS OF GASTRIC CARCINOMA.

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As one approaches the age of 40 the subject carcinoma assumes a personal interest not present before; and that interest is deepened when one stops to consider how good his chances are of passing away by this particular route. While it is undoubtedly true that the great increase in carcinoma cases reported is in part an apparent increase, due on the one hand to more careful diagnosis and more careful registration of cases, on the other to the greatly improved care of children, so that a much larger number of persons reach the cancer age; yet it is also true that cancer is, in all probability, increasing actually and rapidly, its mortality in adults even now approaching closely to that of the great white plague. Careful statistics in England showed that in 1905 one man in eleven and one woman in eight who reached the age of 35 were destined to be the victims of cancer. These are not pleasant facts, but we have them to face.

Now, the two questions in regard to carcinoma of the stomach, which are of chief interest, are the questions of early diagnosis and of treatment. These are trite subjects, and when they are announced, it seems natural to settle down in one's chair, with a bored expression and a fixed conviction that early diagnosis is impossible and that, therefore, surgery—the only treatment—is of relatively little value. But let us cheer up and be less pessimistic. You have lived to see the conquest of the air change from a dream to a commercial reality. You have

lived to see the announcement by a man of unquestionable scientific standing, that syphilis is curable by a single hypodermic injection. And one should not be branded as visionary, who confidently looks forward to the early discovery of the cause and cure of carcinoma. Even if no results had been yet attained, this hope would be justified by the simple fact that all over the civilized world a great body of scientific men have attacked this cancer problem, backed by the wealth of governments and public-spirited individuals. Such a combination of forces is bound to produce results. I venture to say that more has been learned about carcinoma in the last five years than was learned in all time before. But let us see where we stand today.

By early diagnosis is meant diagnosis before the presence of a palpable tumor or metastases or of a cachexia which renders surgery practically hopeless. In order to make the discussion of this phase of the subject reasonably complete, I must consider first some old points which are so familiar to all as to bore you, before I may pass on to some of the newer tests.

It is important now, as it always has been, to record a patiently taken history. In this history, certain points should immediately rouse suspicion: progressive loss of weight in a patient within the usual age-limits of carcinoma, unexplained by definite causes, is very important. This loss may not be constant—there may be periods of



marked gain under various favorable influences—but, on the whole, it is progressive.

Slight digestive disturbances accompanying this loss of weight focus the attention upon the stomach, especially when the patient has previously enjoyed good digestion. If, with loss of weight and more or less gastric disturbance, there is marked loss of appetite, the case becomes more suspicious. Distaste for meat is especially characteristic. It is said that smokers frequently lose their taste for tobacco. I pass over the well-known symptoms—pain, nausea and vomiting, and hemorrhage. They may be present very early. If so, well and good. But if they are absent, we must not wait for them to appear.

The next step is a most thorough and searching physical examination. It will be negative or unsatisfactory in the early days; nevertheless, it should be repeated frequently with great care. A persistently dirty tongue and a moderate anemia are not decisive signs, but they add their own weight of corroborative evidence. The more positive signs do not belong to early diagnosis.

We turn now to the examination of the gastric contents—best the specimen secured through the tube an hour after a lactic-acid-free test meal, such as a shredded wheat biscuit and water or tea. Even in the early stages, there may be blood in this, appearing in streaks or as “coffee-grounds” or as occult blood. This blood is suspicious unless the patient has retched violently and unless there is some evident cause in the history, such as ulcer. Now test for free HCl and if you find this absent or very low, put it down as most damaging evidence. What if free HCl is absent in advanced gastritis and some neuroses? We are not making a diagnosis from one single point, but from all the available evidence, and the fact remains that free

HCl disappears early in the great majority of cases of gastric carcinoma (except when it is implanted on an old ulcer). The finding of lactic acid in abundance is another important point; so long as motility is good this will not appear to any extent, but if it is present it should be treated with respect, not as a pathognomonic sign but as one important link in the chain of evidence.

So much for the old, well-known chemical methods. I turn now to another old method which, in my judgment, has never been fully appreciated. Microscopic examination of the wash water from the fasting stomach is a wearisome task, and its results are of only negative value in the great majority of digestive cases, but in a few conditions the microscopic findings are of great and positive moment. As pointing to carcinoma, I mention the presence of blood cells, pus, microscopic food remnants, and the Boas-Oppler bacillus; but of greater significance than any of these, are the cellular findings. Long years ago Hemmeter<sup>1</sup> advocated his method of “curetting” the stomach. He fed his patients by rectum only for a couple of days, to promote accumulation of debris in the stomach, then washed the organ vigorously, using a rather sharp-eyed tube and moving it about actively in the stomach in the hope of dislodging tumor-fragments and cells. In a moderate number of cases, he was rewarded by the finding of tumor-particles showing the definite carcinoma-structure—the one pathognomonic sign of gastric carcinoma—before a palpable tumor was present. The method is a logical one and its value has been proved; but it is not popular. The patient does not enjoy it, and few physicians are willing to give the necessary time to the search. Marini<sup>2</sup>, in a most interesting article in Boas' Archiv concludes, as a result of several years' patient study of this problem,

that the early diagnosis of carcinoma can be made from the cells found in the wash water which show the peculiar unclear changes and divisions characteristic of carcinoma. I have spent much time in a number of cases in this search, without being able to record any brilliant results; yet I am firmly convinced that the method is a valuable one and should be used much more frequently.

Among the older but less well-known chemical tests should be mentioned Salomon's test, which depends upon the finding of abnormal amounts of albumin and nitrogen in the wash water of the fasting stomach. The writer has had no personal experience with this test.

The positive significance of the repeated finding of occult blood in the stools has long been accepted. Not infrequently, however, one hears the occult blood test spoken lightly of, because there are so many sources from which this blood may come. But anyone who makes this test in a large number of patients is very soon impressed by the fact that the test is negative in the great majority of general cases, and that a positive finding is nearly always of definite value when ordinary precautions are observed.

During the past few years, a number of new tests have been devised, some of which promise to be of material value.

I mention in passing the examination of the stools for Boas-Oppler bacilli by the Gram stain—a method advocated by R. Schmidt<sup>4</sup> from Neusser's clinic. Neusser's bold statement that "Gram-negative stools"—i. e., stools in which the predominating bacillus is not a Gram—positive one of uniform size—"exclude cancer of the stomach" should have challenged refutation or proof; but after several years the value of the procedure is still in question.

Various observers have found the hemolytic test positive in a high percentage of carcinoma cases. This consists in the destruction of normal human red corpuscles when mixed with the serum of a carcinoma patient. The test is not positive in all cases, and as it is positive in some other conditions its ultimate diagnostic value remains to be determined.

Pfeiffer and Finisterer<sup>4</sup> have found a well-marked anaphylactic reaction in guinea-pigs injected with serum of carcinoma patients. Forty-eight hours after the injection with this serum carcinoma juice was injected. The pigs promptly showed a marked anaphylactic shock and fall of temperature, these being absent in untreated pigs or those injected with normal serum. The discovery of this anaphylactic property in a patient with a tumor is said to confirm the diagnosis of carcinoma. If it disappears after operation the patient may be considered cured; and its reappearance is a signal for fresh intervention.

Ascoli and Izar<sup>5</sup> have recently sought to apply their "melostagmin" reaction to the diagnosis of malignant neoplasms. This reaction consists in the definite lowering of surface tension of an immune serum when mixed with its specific antigen and incubated for two hours at 37 C. The patients examined included 62 suffering with malignant growths, carcinomas or sarcomas. Of these fifty-eight gave a positive melostagmin reaction; and 48 patients suffering with various other diseases all gave a negative reaction.

Neubauer and Fischer<sup>6</sup> report the finding in the stomach contents of patients with gastric carcinoma of a ferment produced by the carcinoma which is capable of splitting polypeptides. For practical tests they used the artificial polypeptid glycytryptophan, which yields tryptophan on hydrolysis. The technic is not difficult, and their



results were positive in a high percentage of cases.

J. W. Weinstein<sup>7</sup> has modified the test by omitting the glycytryptophan, claiming that the ferment is powerful enough to split tryptophan from the proteids present. He makes other slight modifications in the technic. The method is very simple and the indications are that it will prove of considerable value. We have used the test in a few cases, but not enough to come to a definite conclusion.

Let me commend to you one other method which gives great promise—the examination by means of the X-ray. G. E. Pfahler<sup>8</sup>, who has perhaps given more study to this subject than any other man in the country, concludes that the diagnosis of gastric carcinoma can be made earlier by means of this aid; that carcinoma is demonstrable when it changes the course of food through the stomach; when it decreases the volume of the stomach; when it interferes with peristalsis; when it causes an indentation of the outline of the stomach; when it fixes or displaces the stomach, or modifies the rate of evacuation of contents. As the examination is tedious and expensive, the case should first be well studied clinically. Great skill and caution are necessary in interpreting the findings, and all clinical data should be at the command of the operator.

These methods are not all within our reach as yet. Our patients are not all millionaires; nor have we facilities at hand to make all these tests. But the early diagnosis of gastric carcinoma is a goal to be striven for to the utmost and we must work to make these things practicable. All these means will fail us only too often, and too much time must not be lost with them in any event. The great surgical diagnostic means is always within our reach. I am a most firm believer in early exploration.

What now of treatment? Let me preface what I have to say by the statement that I am strongly in favor of immediate operation in every operable case. What follows applies only to the inoperable. It is for these inoperable cases that a new light seems to be breaking above the horizon. It is no small thing that men have cured cancer in the lower animals by means of sera or other non-surgical methods. Our hopes that have been raised so high during the past few months may be dashed for a time, but I confidently believe we are working steadily toward the light. I am led to this belief by the reports of four different observers or groups of observers—Hodenpyl<sup>9</sup> in New York, J. W. Vaughn<sup>10</sup> in Detroit, Bertrand<sup>11</sup> in Antwerp, and Coca and Gilman<sup>12</sup> in the Philippines. Poor Hodenpyl died soon after making his preliminary report upon the treatment of carcinoma by the subcutaneous or intravenous injection of ascitic fluid from a patient who had recovered spontaneously after several operations and recurrences, the later recurrences being inoperable. Forty-seven cases had been treated, with the uniform result of softening and diminution in size of the tumors and in some cases of their complete disappearance. If the ultimate results have been reported by Hodenpyl's co-workers I have not seen their reports.

Vaughn, Bertrand and Coca and Gilman, who seem to have grasped the same principle, worked entirely independently of one another so far as I have been able to determine. That principle is the subcutaneous injection of an emulsion or extract of carcinomatous tissue. Bertrand used an emulsion, so finely divided as to preclude the possibility of injecting a living cancer cell. Vaughn called his preparation "Non-toxic cancer residue." Coca and Gilman in all the cases of



their first report used an extract from the patient's own carcinoma, making the infection on the same day as the operation. The results reported were astonishing—the softening, absorption and disappearance of the portion of the tumors left behind, this apparent cure having persisted several months in some cases. I have not seen the later reports of Coca and Gilman, but I am informed that they are less favorable, as well as those of other observers who have taken up their method in San Francisco and elsewhere. Dr. Black tells me that the few tests made here have not been conclusive, but that the conditions present were hardly fair. But, granting that the earlier reports were oversanguine, one must admit that these results are fraught with tremendous significance. And I maintain that the

status of gastric carcinoma is immensely improved, in that on the one hand early diagnosis is more possible than ever before, and on the other there is excellent ground for hope that the cure of inoperable cases will be made possible in the not-distant future.

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## INFECTIONS IN MINOR SURGERY.\*

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The aim of this paper is to give some idea of the work at the Selwyn Emmett Graves Dispensary of the Los Angeles Medical Department of the University of California, and to reveal some of the principles that we are earnestly endeavoring to teach.

In Dr. Alden's report as chief of the Surgical Clinic for the year ending September 30th, 1910, we find that there have been 1308 new cases treated. Of these there were 210 cases of infection, 50 of abscess, 45 of furuncle and carbuncle, 30 of burns, 29 of adenitis, and 29 of local tubercular infections.

Infections in minor surgery are among the first cases that every practitioner, whether surgeon or not, meets in his hospital work, and es-

pecially in his early private practice. Unless the physician can promptly summon certain essentials of diagnosis and treatment to his aid, many a reputation loses by the outcome, regardless of the conditions peculiar to each individual case, and the patient suffers accordingly.

As to the aetiology, the presence of the infection is preceded by some form of trauma, however slight, with the immediate or later introduction of bacteria. The predominating ones are staphylococcus in the local infections, and the streptococcus in the general infections, while combinations of these two and others, such as anthrax and pyocyanus, furnish their quota. Other systematic infections, such as lues, tuberculosis and diabetes, also

\*Read before the Faculty Club of the Los Angeles Medical Department of the State University of California.

predispose to the occurrence of acute conditions and to retard ultimate recovery.

It would seem that the diagnosis should be very easy, but is it? To illustrate: One patient brought to the Clinic in a moribund condition, who had been operated upon in a private office for a supposed bubo, which proved to be a femoral aneurism. Another case sent in with the diagnosis of osteomyelitis, proved to be a hematoma, due to a fall from a bicycle, which promptly recovered after incision and drainage. A third with an abscess of the submaxillary glands gave the history of having been opened the day previous and nothing found. Examination revealed a knife scratch that did not penetrate the platysma and an incision was followed by the evacuation of one-and-a-half ounces of pus. Still another sub-maxillary abscess came in with the diagnosis of cancer.

Considerable attention is given to careful inspection, and careful palpation and not "diagnostic massage" to determine the presence or absence of pus, or other circumscribed fluid and to reach a reasonable diagnosis without harm to the examined tissues.

Regarding prophylaxis, the immediate cleansing and application of clean, if not sterile, dressings, instead of cobwebs and worse, should be taught the laity, and the student and some full-fledged physicians as well, to remove all foreign material and to suture more wounds. Scarcely a day that some patient does not present an infection that might have been diminished or prevented, and disfigurement and loss of time decreased, by the removal of such foreign bodies as tarred paper, gravel, thorns, slivers, and tiny fragments of bone, and the placing of a few approximating sutures. Some of these we have treated by freshening the infected places under local anaes-

thesia and suturing with surprisingly good results. Fresh cocaine solutions and capillary drains are also of much assistance in preventing tissue necrosis. The failure to recognise a fracture may also cause infection. Two cases have come to the writer's attention within the past few months where fractures have been unrecognized until necrosis of both bone and muscular tissue had occurred with a sinus appearing at the surface. The Clinic case shows a resulting tuberculosis of the radius. The radiograph gives you the present condition.

The treatment may be local, but it is often systemic as well, that is, attention should be directed to the circulation and digestive apparatus, and to the presence of syphilis, gonorrhea, rheumatism, and tuberculosis. We have frequently found that the administration of the iodides and mercury has materially hastened the healing of both acute and chronic infections. Where there has been a clearly tubercular history, or the patient gives a positive Moro reaction, a course of carefully graduated dosage of tuberculin has produced marked improvement. T. R. beginning with one-thousandth mmg. has been the preparation used. Good results have also been obtained in bone infection and in large granulating wounds following operation for tuberculosis. We have not tried vaccines in other infections at the Clinic.

To appreciate that methods and specific treatments of infection are legion, one has only to refer to the text-books, or have a few consultations. However, it seems to the writer that the tripod of treatment consists of accurate diagnosis, asepsis rather than antisepsis and physiological rest. Diagnosis has been sufficiently commented. Aseptic cleansing and evacuation where pus can be positively located, or reasonably as-

sumed to be present, by a moderate incision at the proper time, neither too early nor too late, and in the proper direction. That is, not across or into tendons, not across milk ducts and with as little destruction of tissue as possible. A clean cut, not a rough tear should be made, or if the pus is deep in the tissues Hilton's method may be used, and the cavity drained, but not curetted at the first treatment, unless a chronic condition with excessive granulation and debris exists. It may or may not be gently irrigated. If irrigated the antiseptic solution should not be strong, as fat and devitalized tissue stand them poorly. The precipitate from bichloride 1-10000 may be prevented by the addition of salt. Carbolic and lysol should be weak and thoroughly mixed. One-fourth to one per cent. silver nitrate often gives excellent results, especially in those cases where there is an idiosyncrasy to carbolic and bichloride. Peroxide should be diluted, and is said to destroy albumen in which bacteria feed. Boric acid, Burrow's solution, or sterile water, is often the best, as one writer says, "To remove many bacteria, much poisonous matter and also antidote toxic material."

Drains of wicking or gauze, covered with gutta-percha tissue, or gutta-percha alone folded fan-like, should be moderate in size. The cavity should never be too firmly packed nor a large plug inserted, both of which act largely as a dam, nor should drainage be kept in too long. Sometimes it is advisable to insert small drains on alternate days. Bier does not use drainage but cupping apparatus instead, while many other authorities have their own particular method of continued evacuation. When, how much, and how long are nice points to decide. All dressings, except for the purpose of hyperemia, should be large and loosely applied.

Physiological rest is of the utmost importance and often a *sine qua non* to avoid a general septicaemia, as well as local necrosis. This should consist of both bodily rest and immobilization of the affected parts. Jurgensen in "Modern Clinical Medicine," says that his patients are kept quiet for fourteen days after the temperature becomes normal. Rest produces a stasis of the lymph stream, and allows nature to encapsulate by infiltration, the offending material.

Bier's hyperemia is invaluable in aiding this stasis and also in forcing an "autogenous serum," if you will allow the expression, into the diseased tissues. Bier says that the hyperemia accompanies all vital processes.

During the period while Bier's treatment was little heeded, Ochsner was obtaining good results by large moist dressings of boric acid in water, six parts; carbolic, five per cent, and alcohol ninety-five per cent., each one part; combined with absolute rest; and Robert T. Morris was successfully combatting severe infections with 300° F. hot air to secure an active hyperemia.

A few weeks ago a patient was seen in consultation where the effect of the Bier treatment was most marked. The patient, a woman of 40, had a streptococcus infection of the hand, with temperature 104.5°, and each application of a rubber bandage produced an immediate amelioration of symptoms, while the removal produced an equally prompt exacerbation. A mild degree of hyperemia may be produced even in an ambulatory clinic case by a slight tightening of the proximal portion of the dressing. Chronic and subacute infections cannot be considered at this time.

Finally as to loss of function, I think we are all agreed that gentle, but persistent and long-continued passive motion, by both physician and pa-



tient, will prevent many a more or less useless member. This we have recently demonstrated in a clinic case of hand infection. The patient returned for weeks, permitting a thorough, but at no time violent, manipulation, thereby securing a hand that is nearly as good as the uninjured one, that would

otherwise have been deprived of at least two-thirds of its function.

May I emphasize by repeating that accurate diagnosis, asepsis rather than antisepsis, and physiological rest plus hyperemia is the foundation for the proper treatment of infections in minor surgery.

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## THE SEVENTH YEAR AT THE BARLOW SANATORIUM, LOS ANGELES, CAL.

### Report on Sixty-Five Patients Discharged During the Year Sept. 1, 1909—Sept. 1, 1910.

BY R. L. CUNNINGHAM, A.B., M.D., RESIDENT PHYSICIAN, BARLOW SANATORIUM.

The Barlow Sanatorium completed the seventh year of its work on September 1st, 1910. Toward the end of September The Seventh Annual Report of the institution was published and in that report we tried to cover, as completely as possible, the various phases of the efforts made and results obtained in the treatment of the sixty-five patients discharged during the year. Charts were used, following in the main the recommendations of the American Sanatorium Association, and the plan of reporting cases was practically the same as that used previously, giving many details which can not be reproduced in any discussion within limited space. It was also thought advisable to consider the same material in a more popular form and, for the benefit of those non-medical readers who are interested in the Sanatorium, an attempt was made to cover the ground in a general way in the Annual Report. The present article is the outcome of a suggestion by the Editor of The Southern California Practitioner that we consider the medical aspects of our seventh year's work in a descriptive manner in this Journal, since there are many physicians who may be interested in learning what has been done. A copy

of the Seventh Annual Report of the Barlow Sanatorium may be obtained by any physician upon written request addressed to Dr. W. Jarvis Barlow, or to the Sanatorium, should more complete data be wanted upon the material herein described.

During the twelve months from September 1, 1909, to September 1, 1910, the number of patients cared for in the Barlow Sanatorium was 103; we admitted 77 new patients and we discharged 65 patients. The highest number under treatment at any one time during the year was 41. It is upon the 65 patients discharged that the present report is based. As we classified them upon admission to the Sanatorium they fell into the following groups: Stage I. (Turban) 7=10.77%; Stage II. (Turban) 27=41.53%; Stage III. (Turban) 31=47.67%. Not one case of "incipient" disease was received, while nearly 48% of all treated fell into the third stage of the disease and only 10.77% can be placed in the first stage. There are many reasons which go to explain the large number of advanced cases, the most forceful of which is, no doubt, the fact that most of our applicants are people who must depend upon their daily earnings for

their support. To leave work means that all income stops. Consequently they endure the comparatively slight discomfort of beginning pulmonary trouble and are willing to give their entire attention to treatment only when half-way measures have failed and when, on account of the increasing severity of symptoms, it is no longer possible to work.

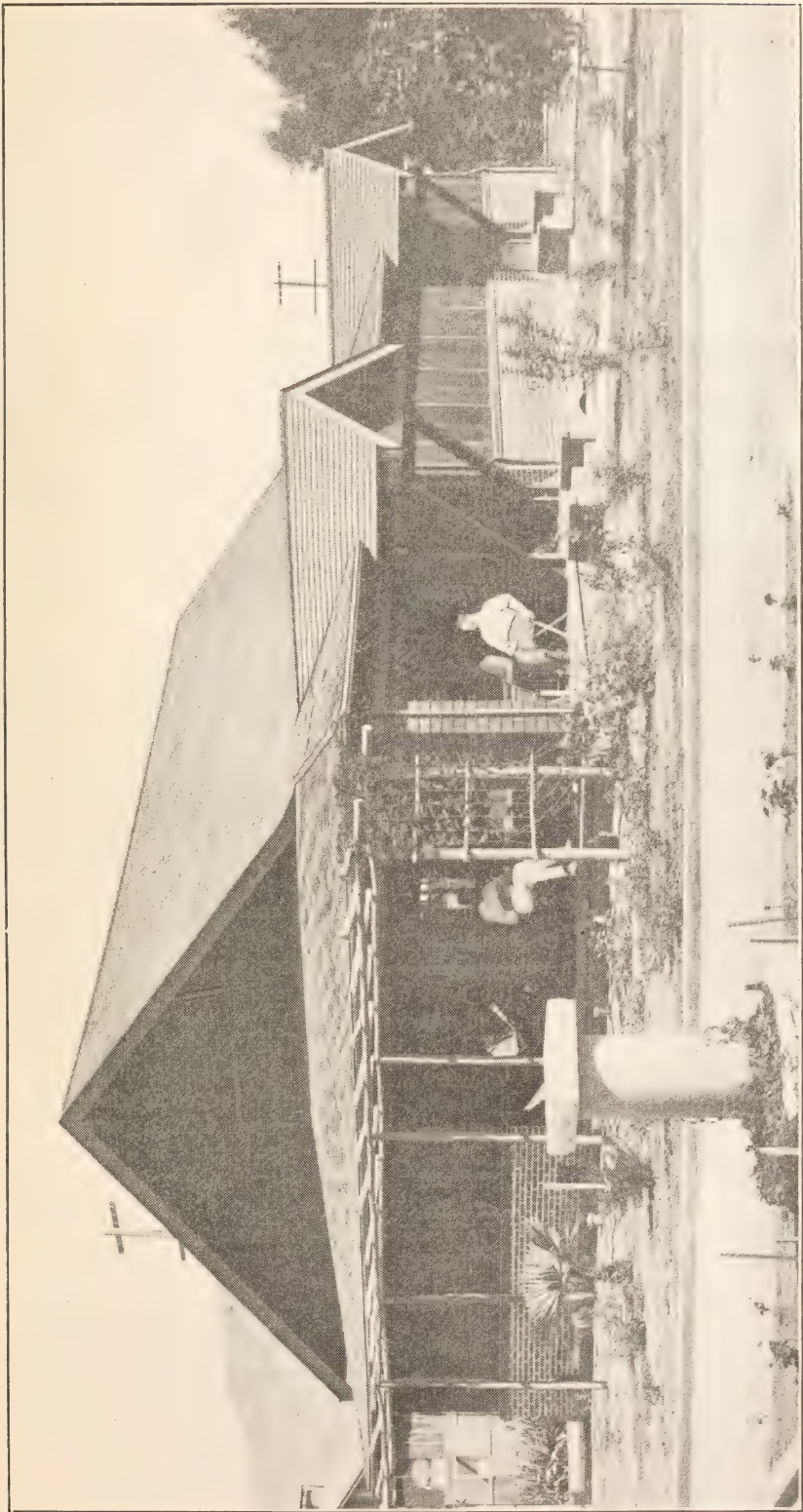
The above becomes even more significant when followed by the statement that we accepted for treatment less than one-half of the applicants who came to us. There were 190 written applications presented within the year, 113 of which we were forced to reject. Of the 113 rejected, 4 were classified in Stage I; 20 in Stage II; 68 in Stage III; 4 not classified, due to oversight; in 2 the symptoms were attributed to non-tuberculous disease; 12 applicants were not seen for examination. In addition to the written applications we received many letters of inquiry from invalids at some distance from the city. To all such treatment was refused, as the institution is kept up for the poor of Los Angeles County alone, or for those who have lived in the County at least one year. Applicants were refused for the following reasons: readmission refused on account of previous bad behavior; inability of applicant to furnish the five dollars a week which covers approximately one-half of the actual cost of care and attention provided; condition of applicant too advanced to offer hope of improvement; extensive involvement of the throat; applicant not a resident of Los Angeles County; applicant able to pay the higher charges of a self-supporting institution; applicant not returning for admission at the appointed time, though accepted; no tuberculosis found (2 cases); disease other than tuberculosis causing chief distress. It will be seen then that though we accepted 31 individuals in the third stage of tuberculosis,

we refused to take 68 advanced cases, or a number larger than the total number of patients discharged during the year. Of the entire 190 applications received 99, or 52.63%, belong in the third stage in the Turban scheme of classification.

Of the 65 patients discharged 40 were males and 25 females. Eleven were blondes, 20 of medium complexion and 34 brunettes. There were 31 Protestants, 22 Roman Catholics, 10 Hebrews, 1 Buddhist and 1 Shinto. There were 20 individuals of foreign birth and 45 who were born within the boundaries of the United States. As nearly as could be ascertained, 29 were infected in Southern California, 7 in Northern California: New York furnished 9 infections, Pennsylvania 4, Illinois 3, Connecticut and Michigan 2 each, and the remaining cases scattered single over nine other States. The question of occupation merits only passing mention here. Thirty-seven vocations are represented. Eight gave their occupation as "clerk," and 6 more as "salesman;" 6 were housewives, 4 were trained nurses, 3 book-keepers, 3 school girls, 2 laborers, 2 stenographers, 2 claimed no occupation, and the rest are single representatives of one occupation or another. Little emphasis need be laid upon the great frequency of this disease among those who work within doors as compared with the few cases which occur among out-of-door workers, as that fact has already been brought to the attention of everyone many times.

The duration of treatment is a question of economic importance. During the past year 12 of our patients were in the Sanatorium less than 30 days. This is far too short a time to render possible any conclusion as to whether there has been any permanent benefit or not. These we therefore consider as "not treated." The average term of residence in the Sanatorium for all patients considered as





RECREATION HALL, BARLOW SANATORIUM.



"treated" (under observation 30 days or more) was 198.56 days, or about 6½ months. This does not mean that six months of treatment will be sufficient for the average case. There are many things to be considered which do not appear upon the surface of this bald statement. We have had one patient who was treated for nearly three years and whom we finally discharged little if at all improved, while we have also had instances of complete arrest of disease, and a few apparent cures, in less than six months. Our average has been slightly longer during the past year than it was previously, which has helped in securing better results from a less promising class of patients, as compared with preceding years.

Where the influence of proper food is as important as it is in the treatment of pulmonary tuberculosis the weight of the patient must demand close attention. We weigh each patient once a week and keep a careful record of each patient's weight upon a special chart. Forty-five of our 65 patients gained in weight during residence in the Sanatorium, with an average gain of 9.57 pounds and with the greatest gain for one individual of 42.75 pounds. Seventeen patients lost in weight during residence, the average loss being 5.35 pounds, and the greatest individual loss being 18.25 pounds. One patient weighed exactly the same on discharge as on admission, and one was weighed but once.

Among the 65 patients under discussion 13 were afebrile, that is, showed no elevation of body temperature above 99° F. while under observation. There were 11 who showed an elevation of temperature above 99° F. in both morning and evening records and 38 who showed only afternoon elevation. The appearance of subnormal body temperature in the morning has been more frequent than an afternoon rise. It receives less attention, how-

ever, because we feel that there is much greater likelihood of error in such records than when the variation from normal is in the opposite direction. The occurrence of haemoptysis, changes in pulse and respiration, complications, etc., may be found detailed in the Annual Report and will not be considered here.

RESULTS: When each patient is discharged from the Sanatorium we determine the result of treatment in accordance with the definition of terms as they are included in the recommendations of the American Sanatorium Association. Strict application of their requirements has given us: Apparently cured 7=10.77%; disease arrested 5=7.69%; improved 26=40%; unimproved or progressive 10=15.38%; not treated (less than 30 days in the Sanatorium) 12=18.46%; died 5=7.69%. When we recall that 89.2% of all cases were in either the second or third stage of the disease the above results are encouraging. Many of the patients in these advanced stages improved to such a degree as to be able to return to work, though not sufficiently to come under a term more favorable than "improved." The value of our results in the education of these patients and of their friends we can not estimate, but we believe it to be considerable. Five of our patients died and upon four of the number post mortem examination was allowed. To the staff the comparison of these autopsy records with our carefully made clinical notes is always instructive, if not always a source of proud reflection, and has proven extremely helpful in many instances. One man died in the Sanatorium after a residence of only ten days; justly placed among the number "not treated."

As to the subsequent course of patients discharged we quote from the Seventh Annual Report: "When our patients reach that point in their recovery at which it would be possible

for them to do some light work and thereby support themselves, we are not able to advise them to leave the Sanatorium, for the reason that it is impossible for them to find work which is within the limits of safety. We are therefore compelled to keep many of them longer than would be necessary if half-time employment were to be had. On the other hand, many, a much larger number, insist upon leaving, contrary to advice, when they themselves feel strong enough to work and when they have lost the symptoms that annoyed them. Under such circumstances the after-results are not always encouraging, especially where the proportion of advanced instances of disease is so large as it has been with us. These advanced cases do very well, and live comfortably enough, while they receive care in the Sanatorium, but when they leave, or are taken to their homes, they often fail rapidly." Our records are far from complete on the point, but we have tried to follow the course of each patient discharged and to learn something of his condition. Many of our old patients come to us for advice and examination and we are glad to give what we can free of charge, but of the greater number we never hear anything after they leave us. Not counting the six patients who died in the Sanatorium, our report shows: at work 7; reporting favorable course 8; reporting unfavorable course 11; lost (no report) 21; readmitted to Sanatorium 2; died after discharge from Sanatorium 9; suicide 1.

Brief comparison of results in two groups of patients must be very superficial, but there are a few points to which we should like to call attention in the present group of 65 cases as compared with the group of 66 cases reported a year ago in this journal, as well as in the Sixth Annual Report of the Sanatorium. We discharged one patient less during the seventh year

than during the sixth, but we treated eleven more, the difference lying in the number under treatment at the end of the year in the two instances. Tabulated comparison will show:

Diagnosis.	6th year. (66 cases)	7th year. (65 cases)
Stage I. ....	10	7
Stage II. ....	40	27
Stage III. ....	16	31
Apparently cured ...	2	7
Disease arrested ....	8	5
Improved .....	28	26
Unimp'd (progress'e)	16	10
Not treated .....	7	12
Died .....	5	5

The important point brought out by the above comparative table is that though the number of first and second stage cases was smaller and the number "not treated" larger in the last year than in the year immediately preceding, the number of patients either "apparently cured" or with "disease arrested" was slightly greater, while the number of "progressive" cases was smaller. To us this is encouraging, and we like to think it a sign of progress.

**TREATMENT:** In treating our tubercular patients we endeavor to follow what we believe to be the sanest lines of therapeutics, using nothing with a belief that it is a specific remedy against the disease, and yet employing every means which we conscientiously consider as offering any aid. All patients spend practically all of the time in the open air, for our cottages can not be closed up to exclude the air. In addition we give plenty of plain, easily digested food, with milk, eggs, olive oil and special articles of diet where indicated. We are insisting less upon forced feeding, though we give milk between meals and at bedtime. Drugs we employ in the treatment of such symptoms as may be relieved by drugs. Prescribed assignments of light work we have found to be most helpful in afebrile patients



and we are trying to have every patient who is fit, do some regular work each day. The effects are both physical and moral and equally good in both spheres. It is a part of the regular treatment and is so recognized by our patients. In the beginning it was difficult to present the requirement in that light but little trouble is experienced now from this cause, and with a few individuals the danger has been rather that they will do too much than that they will shirk what is assigned them. No general rule can be stated as to what work each one is required to do, as that varies greatly and is not always capable of exact measurement.

Within the past few months we have given a number of patients sterile preparations of iron and of arsenic hypodermically. We can not report that work at the present time as it is not yet sufficiently determined in our own minds how great a value the treatment has. We are now using several forms of these drugs in this way and hope to continue them until we can feel that definite conclusion is warranted. In many anaemic patients we have seen marked improvement follow the use of these preparations, and some asthenic individuals appear to gain in strength after a few weeks of the treatment. We have not seen any evidence pointing to hastened healing of the pulmonary lesion, nor do we expect to find more than may be attributed to the improved general condition. The weight seems to increase more rapidly and more certainly in those treated with either iron or arsenic than in those who get neither. Whether this is merely fortuitous or simply an impression, we shall not attempt to say until we have used the drugs over a longer period than the few months during which we have thus far employed them. We would give preference to the preparations of iron, of which we have used the cit-

rate, the metarsenate and the cacodylate, though the hypodermatic and intramuscular administration of all salts of iron is attended with considerable pain in nearly all cases, and sometimes causes slight induration and ecchymosis about the site of the injection, lasting occasionally several days. The intravenous injection of these preparations is recommended, but that is a method which we have not used and upon which we can give no testimony. On the whole we use the hypodermic rather than the intramuscular method of administration, because it has caused less distress, in our experience. This is contrary to the common finding, apparently. The preparations of arsenic, especially sodium cacodylate and the so-called arsenacetin, are well born and seen to cause little or no local disturbance.

With regard to tuberculin therapy we are still unconvinced. To us it is perhaps the least important of available means of combating the disease, though we at all times have several patients who get tuberculin in addition to the hygienic-dietetic measures common to all. In using it we always start with a very small initial dose, generally about 0.00000001 gram, and increase the dose with each later injection, avoiding all reactions, both local and systemic. In some instances we give tuberculin once a week and in some twice a week. Most of our patients who have had tuberculin over a considerable period of time are not included in this report, but of the 65 cases that did come here, 6 received it, of whom but 4 were given this accessory therapy for 90 days or more. One patient received as her highest dose 0.0014 gram of the broth filtrate; we saw no effect attributable to the tuberculin, neither beneficial nor harmful, though the course of tuberculin treatment extended over a period of 14 months. The results in the four cases treated by tuberculin were:



Apparently cured 1; disease arrested 1; improved 1, unimproved 1. One feature that has seemed fairly constant in our small experience is that the patients tend to lose in weight as they reach the higher doses of tuberculin, though no symptom of over-dosage has appeared. Increase in the amount of sputum has also been quite constantly noted, sometimes attended by an increase in cough, but as often not accompanied by any appreciable subjective change. We have seen no apparent effect upon the number of acid-fast bacilli in the sputum following the use of tuberculin. As to whether tuberculin treatment influences the permanency of cure we have as yet no right to draw conclusions from our experience. We must admit that several cases now under treatment, or discharged since September 1st, give a more favorable impression of the use of this particular therapeutic agent than do the few cases properly included in this communication. It is further but fair to state that we do not use tuberculin with those patients who are in the early stage of tuberculosis, nor in those individuals who present a favorable prognosis. We rather select those who are not doing satisfactorily without tuberculin and give it to such in the hope that it may stimulate to improvement. Further, the large proportion of advanced cases, notoriously unsuited to tuberculin therapy, limits again the material at hand for systematic trial of its usefulness, in this Sanatorium.

Those who have seen the Annual Report know that we have made some very valuable improvements and additions to our equipment during the past year. A new building for use as a recreation hall was put up through the generous interest of a friend of the Sanatorium. This building is wonderfully useful. A pool table, a library, card tables, phonograph, piano-player.

etc., are there and the patients gather in the hall each evening to spend two hours or more in amusements available thus. Two new rooms were added to the infirmary building for the accommodation of the nurses and as a diet kitchen, and two small rooms were thrown together to give one large linen-room.

Each year we find an increasing number of applicants coming to us for examination and the demands upon our room are greater and greater. Not a few of our patients have insisted upon a physical examination of some member of their families, and in making these examinations we occasionally discover a beginning infection that was not suspected. Some of these new patients we have watched without bringing them to the Sanatorium for treatment, and our field of usefulness has been somewhat increased in this way. What we hope to have is a new building, to contain no patients at all, but to be given over entirely to examining rooms, record room, photography room, museum, laboratory, etc., providing such special space as may become necessary. Certainly a building of this kind would add greatly to the completeness of the institution and would relieve the infirmary of much growing encroachment. The present equipment is ample for today, but more can be accomplished as the plant is enlarged and improved.

During the past year the actual cost of care and maintenance amounted to nine dollars (\$9) a week. This does not include improvements, of course, but covers only the running expenses for the year. When it is remembered that no patient pays more than five dollars (\$5) a week, while there are always some who pay nothing, the burden of supporting the institution may be estimated quite readily. We can care for a larger number of early cases in a year than of advanced cases, for the reason that the early cases re-

cover more quickly and are discharged to make room for others, while the advanced cases remain much longer in residence. It hardly seems the duty of such an institution as The Barlow Sanatorium to care for the advanced cases, though it is the policy of the management to take such as can be helped, and we always have a large number of these third-stage patients in the Sanatorium. To care for the great number who are hopelessly ill with the disease advanced beyond all hope of recovery or improvement seems rather the duty of the State.

As we stated at the outset, we receive many letters of inquiry concerning our mode of admitting patients and as to rules governing eligibility. It has, therefore, seemed wise to include here, as a conclusion, the information which we send in reply to all such inquiries:

"The Barlow Sanatorium is a philanthropic institution, established for the care of tuberculous individuals resident in Los Angeles County. Patients are taken at the uniform rate of five dollars (\$5) a week, which sum covers approximately one-half of the actual cost of care and attention pro-

vided. The deficit is made up from funds subscribed by friends of the institution in Los Angeles. Every necessary expense is covered by the amount above-mentioned, including nursing, special treatments, laundry, etc.

"Applicants for admission must fulfil the following conditions in order to be eligible for treatment in this Sanatorium:

"(a) They must have lived in Los Angeles County at least one year.

"(b) They must be able to furnish, or to have furnished for them, the five dollars a week, as explained above.

"(c) They must be in actual need of the financial assistance of this institution, as explained above.

"(d) They must be seen and examined by some member of the Sanatorium staff when making application for admission.

"(e) They must be free from complications, as tuberculosis of the throat, intestines, bones, joints, etc.

"(f) They must present a purely pulmonary tuberculosis which is considered capable of cure or of marked Barlow Sanatorium, November, 1910. improvement."

## TONSILLOTOMY VS. TONSILLECTOMY, WITH TECHNIQUE.\*

BY C. H. MONTGOMERY, M.B. (TORO), M.R.C.S. (ENGL.), LOS ANGELES, CAL.

In bringing to your attention this evening the old but ever new subject of Tonsillotomy vs. Tonsillectomy one feels that an apology ought first to be in order. My observations of the end-results of these two operations, however, convinces me that the last word has not yet been said on the subject. At our clinics we see weekly considerable numbers of children and adults who have at one time or another had to submit to either of these

two different lines of procedure and the consequences are such that some of us have formed quite definite opinions regarding their relative values.

To me the decision as to choice rests entirely upon my knowledge of the anatomy, physiology and the time of onset of pathological changes in the tonsils. Any one who has dissected the tonsillar region, a number of times, noted the great depth and area of the tonsillar fossa, noted the extent

\*Part of Symposium on "The Present Status of the Tonsil Operation," given before the Los Angeles County Medical Society, November 4, 1910.

of the tonsillar crypts, noted how very early the onset of degenerated cryptic and parenchymatous condition may occur, can have only one opinion on this subject as to the surgical procedure to be adopted.

The indications for removal of the tonsil have already been dealt with this evening, so also the pathological changes; let me ask you, does tonsillotomy rid the patient entirely of these sources of trouble? The experience and observation of those in this line of work show recurrences following tonsillotomy all the way from 40% to 60% and more, which is a very unsatisfactory matter, especially where it is one's own practice. True it is that a tonsillotomy will improve a condition which is said popularly to be due to the mechanical obstruction of very large tonsils. But do you suppose that tonsils so large as to cause mechanical obstruction are otherwise healthy? I think not. These patients are suffering from more than a simple lack of oxygen, and to do a tonsillotomy, thereby removing only a portion of the glands, is to leave the patient with a large portion of unhealthy gland to be dealt with by his impoverished economy.

#### TONSILLOTOMY.

Tonsillotomy has been of value to many a fortunate patient. It is not, however, the best work that the conscientious surgeon can offer to his patient. Many, perhaps, will remember those patients who have been benefited by their tonsillotomies, especially during the first year or so following the operation. But when we remember the percentage of so-called returns of inflammatory conditions, and also remember that we rarely have the second opportunity of correcting our faulty efforts but that the patient goes elsewhere we ought to abandon this effort for a better one.

Tonsillotomy as a routine procedure cannot enucleate the tonsil. True it is

that we have had the experience of removing the tonsil with its capsule when using say a guillotine, but this is good fortune and cannot be attributed to our skill. Mr. Seecombe Hart reported at the British Medical Association Meeting this year that of 120 tonsils removed by guillotine only one had its capsule intact. This I take it is the experience of those who devote their attention to work in this line. If the tonsil is sufficiently diseased to justify its removal then in the interest of the patient the removal ought to be thorough and complete, and done without prejudice to the patient.

#### TONSILLECTOMY.

Now, whether we designate the operation tonsillectomy, enucleation of the tonsil, entire removal of the tonsil, or dissection of the tonsil, we ought to mean only one thing, namely: the entire and complete removal of the capsule of the tonsil. Nothing else will give us absolute surety of the success of our work. This is the *sine qua non* of the whole operation. The capsule is intimately attached to and is an integral part of the tonsil body, and as such must be removed intact with this structure. To remove the parenchymatous substance down to the capsule and then leave the capsule in situ is to invite, deliberately, a recurrence of a part, at least, of the former tonsillar condition for the relief of which the patient has sought our services. Unless the capsule is removed one is never certain that all the parenchyma of the tonsil is out.

Now as to the technique of the operation, that will, of course, vary with the operator and his choice of method. One or two points ought, however, to be common to all and these are the avoidance of unnecessary traumatism and haemorrhage. The ideal to be sought in the operation is to so plan your first incision that you will at once enter the plane between the cap-



sule and the anterior pillar without injury to the pillar. The first step or two in the operation will virtually decide whether or not there will be unnecessary and avoidable haemorrhage. This is a matter that aside from haemophilia and allied blood conditions and vicarious blood vessels, is largely under the surgeon's control—namely depends upon his technique.

Again, if the operator commences his work before the patient is deeply under the anaesthesia, or operates without seeing precisely what he is doing—either through poor illumination or an unswabbed field—or is too rapid and rough in his dissection with finger or instrument—he will inevitably bruise, cut or remove portions of muscle tissue, thus producing haemorrhage, delayed healing and later on scar tissue which will give the patient a needless degree of suffering and bring discomfort to the patient and discredit to the operation and the surgeon.

The simpler the operation the better. Aside from the operator two matters are of great importance to the patient, the anaesthetist and the assistant. The anaesthetist must know how to give ether safely to a thorough narcosis—that is, until the pharyngeal reflexes are abolished—only then will the surgeon work with the least traumatism to the patient. The assistant must know the technique of the operator and how to keep the field of operation—small enough at the best of times—free from blood without undue pressure and rubbing, thus avoiding bruising the tissues or stimulating the pharyngeal reflexes.

The first step then of the operation consists in grasping the tonsil in such a way that it can be pulled toward the midline of the pharynx in order to unfold the plica and folds of mucus membrane and show sharply the anterior inner margin of the anterior pillar or palatoglossus muscle. This being de-

fined, with the tonsil still on a moderate degree of tension, the first incision is made just internal to and parallel with the inner border of the anterior pillar. This will cut through the plica tonsillar. This incision may be long or short at preference of the operator. It should not be too deep and thus enter deeply the tonsil substance, for if this happens the operator may right here unintentionally convert his intended tonsillectomy into a tonsillectomy. The incision should be planned to simply cut through the mucous membrane as it passes over from pillar to tonsil. This done, in many cases of the larger firm tonsils, the capsule will be seen to almost spring into view. If not the operator now enters his instrument—a Norval Pirce knife or other—immediately posterior to the anterior pillar, hugging this closely. This he will find places his instrument external to the tonsil capsule. It is then carried upward toward the upper pole of the tonsil and downward to the base of the anterior pillar completely freeing the pillar. This finished, the mucous membrane crossing the supra-tonsillar fossa must also be incised, freeing the velar lobe. This may be accomplished by either a straight or curved bladed knife. Then, as to whether the mucous membrane attachment of tonsil to posterior pillar is cut through by knife or snare or torn through by the finger is a matter that varies with the operator. Personally I always see that this attachment is severed, for I have seen injury to the post pillar where this has not been done. The muscles in front, above and behind the tonsil are now freed and the tonsil can easily be separated from the superior constrictor by finger dissection. If this prove tedious or difficult the probability is that the operator is not outside the capsule at all, but is dissecting in the actual tonsillar substance itself.

The tonsil can thus be freed completely nearly to the lower pole. In this vicinity, however, in the greater number of cases it will be found that the fascial strands passing from superior constrictor to the tonsil capsule are more fibrous in character than elsewhere and to tear through these by force is to run too great a risk of tearing muscle strands from the superior constrictor and thus causing delayed healing and painful recovery. The tonsil is now free everywhere excepting on the external aspect low down toward the inferior pole. Personally I next use a snare, though some use a guillotine. The tonsil is seized with some form of Volsellum forcep and lifted gently out of its fossa. The loop of the snare is placed over the tonsil—the operator actually seeing that it passes over both upper and lower poles of same and that no muscle substance is included in the loop. This is now gradually tightened and the wire following the plane of the capsule actually finishes the remainder of the tonsillar dissection.

The tonsil is at once critically examined in detail by the operator while his assistant exerts slight pressure in tonsil fossa. The surgeon must satisfy himself right here that the capsule is entire. This done, he has only to examine the fossa for any bleeding and his work is complete.

After a considerable series of tonsil enucleations at the Children's Hospital in the services of four surgeons, no

case of haemorrhage has so far occurred.

In my own experience the bleeding in tonsillectomy is decidedly less than in tonsillotomy as records at the Children's Hospital will bear ample evidence. This I attribute entirely to the time taken in performing the operation and in the great care devoted to the muscular structures. If bleeding occurs the probability is that some tonsil substance has been left in situ or that the muscles have been lacerated.

The work is always done under ether anaesthesia with patient in the dorsal position. The clinic cases are kept in hospital for some hours and then return some days later to the dispensary for examination. Private cases are visited daily for three or four days following operation.

Finally, the operation of tonsillectomy is not so simple as we are led to believe from the text-book descriptions. The degree of difficulty varying markedly with the size and condition of the tonsil, the thickness of muscle substance of the tongue, and the distance apart of the rami of the mandible. The operation should never be attempted if the surgeon is "in a hurry," or if capable assistance is not at hand, for the whole success of the operation will depend upon the care with which the numerous detail of work is carried out.

Walter P. Story Building.

## THE GERMAN CLINICS.\*

BY HARRY H. LISSNER, M.D., LOS ANGELES, CALIFORNIA.

The medical clinics of Germany are so numerous and varied that to attempt to describe them in more than a cursory manner would be next to impossible in a paper of this kind. The

vastness of material and the unusual number of clinics situated in nearly all of the larger cities of Germany and Austria, rather bewilder the seeker for medical truths, so for our purposes this

\*Part of a Symposium on "Recent Observations on Continental Medicine," read before the Los Angeles County Medical Association on December 2, 1910.

evening I think it more fit to confine my few remarks to one clinic of each type rather than to attempt a general discussion of all the clinics I have visited. When I speak of types of clinics it will be inferred that there may be some differences in the method of conducting the hospitals and dispensaries, but that is not the impression I would like to have you carry away with you; for the general German or Austrian clinic does not vary much in the routine of its daily business. The particular fact which impressed me most was, whether a clinic was patronized, or to be more definite, was more popular with the American physician abroad, or whether it was not. Examples of the former type or popular clinics are Berlin and Vienna. Here the Americans have organized an American Medical Association and take charge of the registration of all visitors or men who expect to register in the courses given. This system of control is necessary wherever a large body of men come together all seeking the same end, and each hoping to outdo the other in obtaining a little the best of it in so far as the most desirable work is concerned. It also gives an opportunity for working in courses by second-rate men, who, simply to get the fees, give a line of work, and which by the way a large proportion of the Americans flock to, that we teach our Junior students in our colleges in this country. It seems that they go blindly into the clinics or that they have come to them without any preconceived idea as to the line of work they are most interested in. Can you imagine graduates in medicine, some of them for years, learning how to outline the lobes of the lungs by percussion or taking laboratory courses on the examination of stools in four hours, or learning all about the diagnosis of internal dis-

eases in ten hours? And yet these men carry you away on the wings of enthusiasm only to leave you stranded after having investigated it for yourself.

The other type of clinic is the one that is not so frequently visited by Americans and this is found particularly in the smaller university towns, such as Heidelberg and Freiberg. The advantages here are numerous. First, the close association between the University proper and the medical branch of the University, and then the inability to divert the mind from the object of the visit. The lack of places of amusement such as theaters, cafes, etc., is rather an advantage, particularly to a young man. It keeps his mind more thoroughly upon his work, and the association with the men with whom he comes in contact is much closer, and in every way the opportunities are much greater than in the larger cities.

I propose to take as a type of large university, the University of Vienna, and of the smaller university, the University of Heidelberg.

Vienna has this particular advantage over Berlin, in that all of the clinical material is concentrated in the Allgemeiner Krankenhaus, while in Berlin the material is spread practically over the entire city in the different hospitals. Medicine in Vienna is divided between the three leaders, Kovach, Van Norden and Neusser. The first is the only one of those three who gives the regular course in diagnosis and differential diagnosis to Americans. The latter two give the regular university courses. The work of Kovach is brilliant and most liberally patronized by the Americans who visit Vienna. The cases taken up are generally those from which one can learn many points and in the majority of cases are in such advanced stages



that the men in the course, after having made a clinical diagnosis, have the privilege of seeing the autopsy. This close association between clinical medicine and pathology is probably the most important factor in the development of the Germans and their great advantages for clinical research over us in this country. Their cases are much more carefully worked out and their diagnoses made with greater care for accuracy and precision owing to the fact that the pathologist is always glad to be able to demonstrate an error in diagnosis at the autopsy. Kovach is most energetic as regards watching autopsy findings, and shows a keener interest in his cases than do the others in the clinics. He attends practically all the autopsies, brings the complete clinical notes of the case and follows the gross pathological findings in every detail. Perhaps it is in this close attention to detail that his greatest worth as a clinician lies. No symptom, "subjective or objective," is too trivial to be mentioned in the history. Positive findings are recorded accurately, but just as much place is given to negative findings, and these are considered of great importance. Such observations, while they may have no particular bearing on the case under consideration, add an element of value to the history for future reference. The taking of clinical notes, or rather the physical examination of the patient, is always supervised by Kovach personally, and while the assistants do make examinations, their findings are always checked by him. This condition does not exist in the other two clinics to such a marked degree, the greater part of the work being left to the assistant, and the thoroughness of the history and physical examination depends upon his interest in the case.

Van Norden and Neusser, both internists, present two different classes of medicine to the student. Neusser rather more from the symptomatology and Van Norden from the standpoint of metabolism. In the treatment and consideration of heart and kidney diseases, Van Norden depends as much upon the dietetic treatment as he does upon the use of drugs. His clinical lectures are extremely interesting and give one an entirely different point of view from which to consider the various internal diseases. Of course his strong point is in the treatment of disturbed metabolism, particularly Diabetes. Here his method of procedure is directed to extreme accuracy as to the amount of food given to a diabetic patient, with regard to the relation existing between its caloric worth and the weight of the patient. All food given is accurately weighed, all ingested liquids are measured and careful account kept upon the fluctuation of the weight of the patient, and the per cent. of sugar in the urine as influenced by the diet. Such a system must of necessity entail considerable labor. These points are carefully watched by a corps of trained assistants, both medical and nurses, and on all such cases a careful daily estimate is made of the nitrogen output in the urine by the Kjeldahl method.

Neusser, on the other hand, is much more probing in his presentation of a case. He enters more into the discussion of symptoms and their relation to the disease. I remember two of his lectures particularly, both of which were in conjunction with special cases. One case where headache was the predominating symptoms, he spoke for one and one-half hours on "Headache and Its Value as a Symptom in All Its Conceivable Phases, and the Diseases in Which it Might Occur." The other was on "Icterus, and Its

Value as a Diagnostic Sign, Particularly, in Gall Bladder Cases, and Diseases Other Than Conditions of the Liver and Gall Bladder in Which it Occurs as a Secondary Symptom." His manner of address is very much like the man himself, and carries with it a retiring modesty, but a positiveness of thought and presentation that inspires the confidence of his auditors and makes one feel that he is giving the best that is in him at all times.

To my mind, however, the most advantageous place for the student of medicine is the smaller university town. Heidelberg is ideal. There is an abundance of material which, by the way, is sufficient to keep one occupied and does not bewilder one in the search for proper clinics. Then again it is a new field for the American doctor, free from the disadvantages that beset one in the search for proper clinics and clinical material. It also has the advantage of the direction of Gehimrat Krehl, who, probably, is the foremost internist on the continent today. The system which predominates the Akdemische Krankenhaus in Heidelberg, is one which appeals to me as being the best to obtain results over any clinic that I have visited on the continent.

Medicine in Heidelberg has a firmer foothold on science than in any other city I visited. During my last visit there I was more impressed than ever with the breadth of mind, the keen insight into the remotest corners of medicine, the prowling after truth, the consideration for the patient; and, in fact, every possible phase connected with a case is brought out with a lucid understanding and a broadness of character that I feel no other clinician capable of. As an example, let me quote the following cases: A family of seven, father, mother and

five children, were brought to the hospital suffering from mushroom poisoning. In presenting these cases to the students, Krehl considered first the botany of mushrooms and the various species, poisonous and non-poisonous, of the entire family group of these fungi. For this information he consulted the Botanist at the University of Heidelberg. From the medical point of view he considered the symptoms and pathology, effect on the intestines. He differentiated between the stools produced by mushroom poisoning and the stools of Cholera, Typhoid, Dysentery, Colitis and Enteritis, going into detail in each case, and finally entered into a short discussion on the Psychology of the mushroom hunter. Krehl shows a decided interest in Pathology and with Prof. Earnest at the head of this department, he has a co-worker who re-echoes his enthusiasm and interest in the work of the institution.

The relation between Krehl and his assistants is one which insures the greatest amount of work and acts as a stimulus to the interne. In order to bring out the best that is in him and to give the best results to scientific medicine. The work here is divided amongst the various assistants so that one man is particularly interested in hearts, another in kidney diseases, another in blood, etc. All of these men, of course, are under the direction of the one head. The greatest difficulty which besets the American in the larger cities is that the spirit of Americanism has placed the better clinics on a purely commercial basis, and that for one to obtain real scientific medicine, theory and practice, it is necessary to visit the smaller universities or those places that are not over-run by Americans abroad.

Lissner Building.



## THE FINSEN INSTITUTE IN 1910.\*

BY ALBERT SOILAND, M.D., ROENTGENOLOGIST, LOS ANGELES, CALIFORNIA.

Only a few American physicians realize how much has been accomplished in that little Scandinavian country, Denmark, with radiant light energy in the battle against lupus vulgaris and kindred cutaneous affections.

What was formerly almost a national malady in that country is now become practically eliminated through the persistent and painstaking work done at the Finsen Light Institute of Copenhagen.

Finsen himself, who died just as his life's work was fairly begun, has been ably seconded by Drs. Forchhammer and Reyn.

The former has charge of the Finsen light department, while the latter looks after the Roentgen division, which has been added to the institute recently.

In all fairness to these gentlemen it may be well to state that when it became generally known that the Roentgen rays were also curative in lupus, they procured efficient apparatus and undertook the Roentgen work side by side with the Finsen treatment.

The Finsen light proper, as you know, is a powerful electric arc which is accurately focussed on the lesion and made to work through water cooled lenses. Each treatment lasts from one to two hours, and is productive of a vigorous solar erythema which is destructive to diseased tissue and stimulating to normal structures.

The end results in superficial lupus are brilliant. While the treatments are rather prolonged and tedious, there is no pain, and freedom from disfiguring scars with a good cosmetic effect makes this form of treatment elective.

It was my good fortune to be able to visit the Finsen Institute five years ago, and again the present summer. Being also able to speak the native language gave me additional opportunity to get in close touch with the men, and observe the work to better advantage.

On my first visit, Drs. Forchhammer and Reyn were subjecting about one hundred and fifty patients per day to the light treatment. They were assisted by two younger physicians, and personally came in contact with each patient daily.

Up to this time the work had been carried on with the Finsen light exclusively, and Dr. Reyn had begun to experiment in a small way with the Rontgen rays as supplemental to the Finsen work.

My impressions at this visit and a description of the work were presented to this Society in a paper at that time, so now I beg leave to present briefly a description of the work as carried on in 1910.

Having seen but few allusions to the Finsen Institute in the medical press of late years, I had expected to find it somewhat decadent or perhaps a little old-fashioned in these modern "rapid fire" days, but much to my delight found it in active operation and greatly enlarged.

In addition to the Finsen clinic proper, presided over by my friend, Dr. Forchhammer, a large and thoroughly modern Roentgen clinic under the guidance of the genial Dr. Reyn, had grown and developed to proportions that bid fair to equal the Finsen department in the near future.

In addition, a new building for internal diseases had been erected, where massive light treatments are

\*Part of a Symposium on "Recent Observations on Continental Medicine," read before the Los Angeles County Medical Association on December 2, 1910.

combined with general electro- and hydro-therapeutic measures. Drs. Hasselbach and Rubow have charge of this building, with several assistants.

The Finsen clinic proper was practically unchanged, and routine work carried as before.

In looking over the groups of lupus patients sitting in the reception room awaiting their turn, I was at once struck with the different appearance of this class over the one of five years before. At that time there were a great number of horrible and apparently hopeless types of facial lupus cases with massive and destructive lesions, seeking relief.

The present class of today are much better to look upon. Smaller and less destructive lesions which in turn yield much quicker to treatment, and afford permanent cures.

In commenting upon my notice of this change, Dr. Forchhammer made the following statement, in substance: "Of course we could cure entirely those helpless cases which came to us in the beginning of our work, and in whom destructive changes had been going on for years. This much I can say, however, that these cases have been changed from an open infective to a closed non-infective type of disease. The recent smaller lesions are amenable to cure, and we are eliminating lupus from Denmark.

These remarks were made soberly by an unassuming and scientific gentleman who had personally seen and treated thousands of lupus patients, and I saw enough to know that he spoke the truth.

At present the work is divided as follows: All uncomplicated cases of lupus vulgaris and erythematosis are treated with the Finsen light. The mixed infections, the cutaneous tuberculides and epitheliomata are exposed to the Roentgen rays. In this department Dr. Reyn has in operation

four modern coil inductors, with protective screens and diaphragmed tube holders which are in active operation all day long.

The X-Ray treatments being so much shorter in duration that the light treatments make it possible to handle almost as many patients per day as in the light clinic. Every precaution is taken to guard both the patient and operator against untoward X-Ray effects.

Sabourouds pastilles are used exclusively to determine the proper X-Ray dosage. These have been found the most satisfactory and least complicated of all the devices originated to register the amount of X-Ray energy transmitted to the living tissues.

The work in this department compares very favorably with X-Ray work of a like nature seen at other scientific institutions.

The department devoted to treatment of internal diseases will demand some attention. Here are successfully handled many cases of perverted metabolism, cardiac, renal, circulatory, and nerve disorders. Neuralgias, myalgias and schleroses have also been found to yield, together with other conditions that do not submit readily to medicinal treatment alone.

Powerful naked arc lights are made to illuminate the body from different angles. The heat is controlled by ingenious water screens which offer very little obstruction to the chemical rays.

Incandescent cabinet baths are also employed together with hydropathic measures in suitable cases.

The De Arsonval current and the Tesla coil play a prominent part in the work, and altogether it can be said that the Finsen Institute occupies a place unique in medicine, and easily stands preeminent at the head of its class.

Wright and Callender Building.

## ATONIC AND SPASTIC CONSTIPATION.

BY H. S. GORDON, M.D., SANTA ANA, CALIFORNIA.

Constipation is a condition the physician is called upon to treat as frequently as any other class of cases and one which I am sorry to say he most frequently fails to cure; not that he lacks remedies or means to cure it, but because it is almost impossible to secure intelligent co-operation from the patient in the regulation of his habits and the persistent use of the proper diet. It seems almost impossible to get a patient to follow the physician's instructions in regard to diet. Hence, the physician fails in the scientific treatment of constipation and he falls back on his usual anti-constipation pill with the hope that it will be effective until the patient at least changes doctors. I shall only consider briefly in this paper chronic atonic and spastic constipation, following out the lines of thought advanced by Cohnheim in his excellent work, which, by the way, was translated by Dr. Dudley Fulton of Los Angeles and no doubt has been read by all who are in general practice. If there is one who has not read it, I would advise him to do so at his earliest opportunity.

The causes of constipation are neglect in habit, insufficient exercise, diminution in the power of expulsion, unsuitable food, diseases of the stomach and intestines, nervous influences, local obstruction and abuse of laxatives. These causes are the principal ones in the production of atonic constipation. Cohnheim says that except in the neurasthenic chronic constipation always begins with the atonic stage in which the musculature of the colon is relaxed. It is, however, claimed by Schmidt that this stage is due not to atony of the bowel, but too thorough digestion and absorption, and as a result the intestinal bacteria

have not sufficient food for their growth. The diet which has been found most successful in the treatment of this stage seems to corroborate this theory.

The catarrhal follows the atonic stage after it has existed perhaps for years. It is brought about by the irritating effect of the scybala upon the intestinal mucosa or from the abuse of irritating cathartics. It begins as soon as the catarrhal enterocolites or the use of laxatives have irritated the colon sufficient to protract its musculature.

In nervous and hysterical patients this stage sets in much earlier than in those of a normal nervous balance, various conditions and symptoms accompanying this stage, among which the membranous enteritis, mucus colic and obstinate constipation, being a result of a spastic contraction of the muscles of the colon, large amounts of mucus accumulate at the point of constriction and the fluids of the scybilla are absorbed and the mucus assumes a membranous form. I have seen patients who passed large quantities of this mucus when relaxation took place. In advanced cases of spastic constipation diarrhea may set in when the patient will usually suffer from alternate constipation and diarrhea. It is not difficult, however, to diagnose when we learn that the patient has had constipation for years and attacks of mucus colic.

In regard to the differential points in the diagnosis of the two stages, there should be no difficulty. In atonic constipation the patient complains only of lack of spontaneous bowel movements with dull headaches and a general lack of energy. There is no pain or flatulence. The stools are normal in color and consistency.



The colon and sigmoid are usually filled with feces, while the spastic or catarrhal stage is accompanied by flatulence, mucus colic and the admixture of mucus with the stools. The mucus colic is characteristic of this stage. In fact, Cohnheim states that "every case of chronic constipation that is accompanied by attacks of pain is of the spastic variety. In this stage laxatives are either not effective or only so in large doses. Likewise enemas are usually ineffective. In thin walled persons the colon is found contracted into a cord the size of the finger and is usually sensitive to pressure.

Keeping in view these diagnostic points it is easy to distinguish the two stages and keeping the stage of each individual case in mind it is not so very difficult to cure a large per cent. of your cases, provided you can secure the intelligent co-operation of the patient.

In the treatment of the atonic stage the sole indication is to secure spontaneous movements of the bowels. The hygiene is the first thing to be attended to. They should avoid sedentary habits and should be advised to take up some form of systematic exercises, as swimming, horse-back riding, walking a great deal, etc.

In the mechanical treatment much can be done for some of these cases who suffer from enteroptosis or relaxed abdominal walls, **by wearing a properly fitting abdominal bandage.** Massage is another aid in this stage, and while there are numerous authorities who give specific rules for the massage, I have found the vibratory massage as effective as any and much more easily given. It should be given at first daily and later two or three times a week; at least 25 or 30 treatments should be given any case to be of any benefit. Cold friction and cold baths aid in the treatment. Electricity is highly recommended by some,

but I have not used it sufficiently to be able to recommend it.

The diet must be of such a character as to leave an abundance of waste in the intestines (list).

In case laxatives become imperative I find the one-grain tablets of Ext. Cascara Sagrada to answer the purpose, but no laxative should be given if it can possibly be avoided. I have found very few cases of atonic constipation that I could not benefit with the vibratory massage, and the diet laid down in the list shown you.

The treatment of the spastic stage is radically different from that of the atonic stage, as we have here a membranous enteritis to deal with, and the musculature is in a state of hypertonicity. Therefore, in the hygiene of this class of cases rest should be enjoined, especially after eating, and I find it much more satisfactory to place these patients in a hospital for two or three weeks where all the routine of the treatment can be carried out systematically and the patient can have absolute rest. At the end of this time the patient can see the good results and is, therefore, encouraged to continue.

The abdominal bandage should be worn in all cases with relaxed or pendulous abdominal walls, but massage which renders such valuable aid in the atonic stage is contradicted in this stage as it only excites the spasmodic contraction of the colon. Purgatives are not indicated because they are frequently the cause of this condition and because they aggravate the contraction of the colon.

Fleiner's oil treatment I have found sufficient to secure a daily movement. He advises the use of from eight to twelve ounces of olive oil per rectum at bed time. It should be given at first every other day and later two or three times a week. I instruct my patients to use it on the evening of the day the bowels do not move, omit

ting it on the days there is a spontaneous evacuation. Some of my patients after a few weeks' treatment have only to use the oil once in a week or ten days. For the benefit of the neurasthenical a luke warm bath lasting about a half of an hour is very beneficial. A towel or heavy flannel wrung out of hot water placed over the abdomen covered with oil silk, the whole fastened on with a bandage and allowed to remain all night, relieves the intestinal spasm and wards off the attacks of mucus colic.

The diet in spastic constipation should stimulate peristalsis chemically and not as in the atonic stage mechanically. Consequently the diet such as used in atonic constipation must be avoided in this stage and an altogether different list made up for these patients (list): You will observe the difference is great. There is little to be gained by the internal administration of medicine. I usually prescribe for the carmenative tea:

Tr. Belladonna....2½ drams  
Spts. Peppermint.....1 dram  
Tr. Valerian.....5 drams

and give 30 drops in a cup of hot water morning and evening, or in place of the evening dose 1-100 gr. of atropine sulphate.

Now unless we intend to specialize and go into the details of every case and microscopical examinations, we can be fairly successful in our treatment if we bear in mind that constipation without pain indicates the atonic stage. If associated with gas and mucus colic it is spastic. In the atonic stage we may expect good results from massage and the coarse constipation diet, and while the spastic stage is more difficult to treat and slower to yield, yet we may be reasonably confident of improvement by the persistent use of the oil enematic, hot applications, valerian, belladonna and the mild constipation diet.

## ALCOHOLISM AS A CAUSE OF DISEASE.\*

BY H. A. HUGHES, M.D., PHOENIX, ARIZONA.

In presenting a paper on the subject of the attitude of the medical profession regarding the liquor traffic, or on any subject touching the traffic and use of spirits, I am well aware that it is at the expense of being called a crank and fanatic. But, as I have worn such a title for many years, it fits with the ease of a well-worn pair of shoes, that have accommodated themselves to all the corns, chilblains and other tender spots, and so is worn without complaint.

Yet, as a body of medical men, our main object in life should be to benefit mankind, and to give to the world more than we extract from it, and what I want us to do, as the rank and file of the profession of medicine, is

to investigate the question of the use of alcoholic liquors in the same spirit of fairness that characterizes the discussion of other subjects affecting the health and prosperity of our people.

I will be able to show you that from a purely scientific standpoint the great body of the medical profession has in its efforts to accomplish good along the lines of sanitation, preventive medicine, and even in the treatment of disease, overlooked one of the most serious of all causes of sickness, insanity, degeneracy and death.

A few years ago a few hundred cases of hookworm disease were found in the South and soon a physician succeeded in interesting Mr. Rockefeller, and a million dollars was given for its

\*Read before the Arizona Medical Association, April 22, 1910.

treatment. I tell you that there is another worm that has ten thousand hooks to the so-called hookworm's one. The copper worm is doing ten thousand times more harm to the human race than the hookworm, and yet no physician, no body of physicians, have appealed to Mr. Rockefeller for a part of his wealth for its destruction.

Hundreds of thousands of people go to a premature death every year as a result of the use of intoxicants. The exact number cannot be estimated. "Ten per cent of all deaths in the United States last year are traceable to alcohol," declared Dr. George W. Webster, President of the Illinois State Board of Health, in an address at the Public Library, Saturday afternoon, April 2, 1910. It is a contributory cause in so many different ways. One of our very best authorities on therapeutics says: "North Pole voyages, military expeditions, experiences in India and the diminished power of resistance to cold and heat shown by drinkers have conclusively demonstrated that alcohol does not supply the place of other foods, and that those habituated to its use, damaged as they are in their vital organs, do not possess the same endurance of fatigue and the same power of resistance to external morbid influence as does the tetotaler."

Furthermore, clinical experience has amply proved that toppers do not bear chloroform well, that they succumb more quickly to injuries and surgical operations and that they possess much less power of resistance than the temperate to the inroads of disease.

These are mere by-products, or conditions not usually taken into account when speaking of the death rate from alcohol. As to the mortality of those who manufacture and sell liquor, we get from insurance records the fact that the number of men who live to the age of fifty-five years, engaged in

all other occupations, is 45 per cent.; while that of those who are engaged in the sale or manufacture of liquor is 21 and 61-100 per cent. The number of men who live to the age of sixty-five years, engaged in all other occupations, is 30 per cent.; those engaged in the handling of spirits is but 8 and 10-100 per cent.

Statistics are generally dry reading, but the startling character of what I am about to furnish you, may give a slight relish to them. As we pass on from the mortuary list to some other phases of the subject, every well-informed physician knows that it is the nerve center that suffers most from alcoholism. Hammond has demonstrated that it has a special affinity for nervous matter, being found in the cerebro-spinal axis, and in the nerves, in greater quantity than in other tissues of the body. From direct contact, chiefly, but in part also from the variations in the intra-cranial blood current important structural alterations gradually are wrought in cerebral matter. The cells of the gray matter become more or less shrunken. The whole cerebral body becomes shrunken and impaired.

Understanding these pathological changes we are in a manner ready to appreciate what follows.

Alcohol was a direct cause of insanity in 21 and 61-100 per cent. of the cases admitted to the public asylums of Massachusetts in the year of 1906. Alcoholism in parents was the cause of 20 per cent. more. Dr. Graves and Dr. Warsham, superintendents of Texas asylums, put the cause of insanity from alcohol in the institutions at from 60 to 70 per cent. Other state asylum reports give as the cause of insanity from alcohol all the way from 20 to 90 per cent.

Think of it, gentlemen, and let us ask, "Are we busying ourselves in this matter as we are along other lines of



preventive medicine?" Now some are ready to say "Yes, this is in the United States, where people don't know how to handle the stuff." Not one of you but have been told hundreds of times about how harmless liquor is in foreign countries, where whole families go to the cafe and enjoy their spirits. Never any drunkenness. We fail to understand why an alcohol-soaked brain in Europe is not subject to the same changes that affect the American brain.

In Norway, partly local option, the amount of beer consumed per capita is four and four-tenths gallons; wine forty-four one-hundredths and spirits seventy-five one-hundredths. Canada, partly local option, beer four and seven-tenths; wine nine one-hundredths, and spirits seventy-five one-hundredths. United States—beer, fourteen and three-tenths; wine forty-one one-hundredths, and spirits one and fifteen one-hundredths gallons. Denmark—beer twenty-one and three-tenths; wine nothing, and spirits three and twenty one-hundredths. France—beer, five and two-tenths; wine thirty-two and six-tenths, and spirits one and sixty-seven one-hundredth gallons. Germany—beer, twenty-six and seven-tenths; wine one and twenty-four hundredths, and spirits one and eighty-nine one-hundredths gallons.

Now, hereafter when a man tells you that in these foreign countries there is no trouble over the liquor question, give them these figures and tell them they don't know. If one and fifteen one-hundredths gallons of whiskey puts 20 to 50 per cent. of the inmates into the asylums in America, what will one and eighty-nine one-hundredths gallons do for Germans?

Let us take first the Royal Edinburgh asylum. De Coalson says that he found 42 per cent. were of those in which alcoholic excess was given as its cause. Let us look at France. Of-

ficial figures compiled by the French Minister of the Interior show that 14 per cent. in the asylums was due directly to the excessive use of liquor.

In Munich, 25 per cent of the cases of insanity was traced to children of alcoholic parents, while the mortality among children of alcoholic parents was 45 per cent. Seventy-nine per cent. of the epileptics were there on account of strong drink. The recent publications of the London Asylum Committee's annual report show that in one large asylum the medical superintendent stated that out of 959 inmates received, 211 were due to intemperance.

The lunacy commission gives it as the cause, for the last five years, of 21 per cent. of the admissions.

The following from the United States census report shows the number of insane, idiotic and other defectives in the United States:

Defectives:	1850	1860	1870	1880
	50,994	68,481	98,484	251,698
Total Population:	1850	1860	1870	1880
	23,191,876	33,443,321	38,558,771	50,155,783

This table shows that, while the population doubled in thirty years, the number of defectives increased 400 per cent. The increase of population from 1870 to 1880 was 30 per cent., and the increase of defectives during the same period was 155 per cent.

In other words, in 1860 there was 1 defective to 1,310 of the population; in 1870 there was 1 to 1,100 of the population; in 1880 there was 1 to 570 of the population.

The official statistics show an increase of 300 per cent. in insanity in the United States during the past fifty years, and the same increase has maintained in the proportion of imbeciles and epileptics. At this rate the population of the United States would become universally defective in 265 years.

Official figures compiled by the French Minister of the Interior show that of the total 71,551 insane persons, the insanity of 9,932, or 13 and 88 per cent., was credited to alcoholic excess. Of these, 7,062 were males and 2,870 were females.

The figures further show that of these 9,932 persons alcohol was the sole cause in the case of 3,008; there was a complication of mental weakness or degeneracy or alcoholic heredity in the case of the remaining 3,639.

In regard to the kinds of liquors used, the 9,932 persons were divided into classes as follows: Absinthe habitues, 1,537; brandy users, 2,631; cider or beer drinkers, 664; wine consumers, 1,755; users of certain alcoholic drugs or liquors, 3,345. These figures take no account of ancestral excesses.

Considering the United States as a whole, it is variously estimated that from 25 to 30 per cent. of all the insane patients admitted to the asylums year by year owe their misfortune, directly or indirectly, to the abuse of alcohol. The statistics of other countries are closely similar. In England and Wales, according to the estimates of Dr. Robert Jones, alcohol claims 17,000 victims among an asylum population of 116,000.

The testimony of Continental alienists is no less unequivocal, and the statistics upon which their opinions are based are no less suggestive as to the alarming increase in the ravages of alcohol in recent years. Thus the official returns from the asylum of St. Anne, in Paris, for the period of 1872-1885 show that of 31,733 insane patients, 28 per cent. of the men and less than 6 per cent. of the women owed their condition to alcoholism. But of the patients in the insane institutions in 1900, according to Dr. Legrain, no fewer than 51 per cent.

of the men and 22 per cent. of the women were alcoholics.

Altogether similar are the returns from the asylum of Vienna. According to Tilkowski, 14,391 insane patients were under treatment there during the period 1871-1882; and of these 25 per cent. of the men were victims of alcohol. At the International Congress Against Alcohol, held in Vienna in 1901, it was shown that the corresponding percentage for these institutions had grown to over 31 per cent. for the period 1885-1896. For the years 1894 and 1895 the figures rose to over 40 per cent.

Drs. Baer and Laquer report that in the asylums for the insane in Prussia, in the years 1880-1883, the proportion of alcoholics among the male patients was 30 to 32 per cent. In 1886 the proportion had risen to 35 per cent.; in 1887 to 37 per cent.; in 1889 to 40 per cent. If cases of congenital idiocy were included in the estimate, the power of alcohol made itself felt, in the last named year, to the extent of 45.5-10 per cent.

Dr. T. H. Ziehen, professor of the University of Berlin and director of the clinic for mental and nervous diseases, and who is a most conservative writer, in a pamphlet on the influences of alcohol on the nervous system, says: "I believe I can show that drink is wholly or largely responsible for every fifth case of mental and nervous diseases in Germany."

Dr. McNichol of New York says: "Instead of the elixir of life, the fountain of immortal life, it is the essence of depravity, the grave of hope, the advance agent of death."

Eminent German scientists claim that it is shown that alcoholism is five times as extensive as it was twenty years ago, and that cases of delirium tremens have increased 300 per cent., although the population has grown but 35 per cent. in the same

time. Gentlemen, in writing on this subject you will notice that I have said nothing about the crime and misery and expense caused by the use of liquor. I have confined my remarks to the medical side of the question. That ought to appeal to you as medical men; thoughtful, honest and capable of seeing what ought to interest us more than the laity.

I might have written much more than I have just on the effect of liquor-drinking in America, but have quoted from foreign authorities in order to correct the oft-repeated statement that it is only in the United States that the damage by liquor is done. The injury is in proportion to the amount used, and statistics show that in the well-regulated countries of Europe there is more whiskey per capita than in the United States.

Gentlemen, the records of asylums in Europe and in the United States; the records of institutions for epileptics; the records of institutions for degenerates or defectives, all tell the same, same sad story, differing only in degree.

Here it puts a man or woman in the asylum as a direct cause, and here it takes the child of the drunken and makes an epileptic of him, or here breaks forth with a family of degenerates.

All I ask is that you forget all the many other sides to the question of the use of liquor, and as physicians treat the liquor traffic as you would some new disease which developed in your midst, and threatened to kill or maim the same number that is ruined by the use of alcoholics.

Let us forget the revenue aspect, which is only a fraud and a snare. It is the same as a cow sucking herself. Let us forget the personnel of the man who has his money invested in the stuff. We need not look even at the moral side, as the preacher does. And when the medical profession looks at the question from a purely scientific standpoint, the same as he looks at the prevention of the spread of contagious diseases, then the traffic in human life will go, and we will be true benefactors of our race.

## LOS ANGELES MEDICINE—AN HISTORICAL SKETCH.\*

BY WALTER LINDLEY, EDITOR OF THE SOUTHERN CALIFORNIA PRACTITIONER.

This work will for many years be a valuable book of reference. The history of the past is the guide-board of the future. Read herein of the first meetings of the Los Angeles County Medical Association forty years ago, of the organization of the College of Medicine of the University of Southern California (now the Los Angeles Department of the College of Medicine of the University of California) more than a quarter of a century ago, the Salutatory in the first number of the

Southern California Practitioner, published nearly twenty-five years ago, and you will gain an insight of the motives and ambitions that actuated the medical pioneers of Los Angeles.

These records make a most creditable showing.

For thirty-five years the writer of these lines has been a participant in the current medical history of Southern California and he is proud to see it collected and recorded in this permanent form. There were some strik-

\*Introduction to "History of Medical Profession of Southern California," by Geo. H. Kress, A.B., M.D., Los Angeles, 1910.



ing characters in the profession in Los Angeles thirty-five years ago. There was that impressive looking Irishman, Dr. Richard S. Den, who always rode a magnificent black horse groomed to glossy perfection. Dr. Den himself was invariably well groomed, being at all times dressed as though he were going to a wedding. But he never attended his own, and died at an advanced age a bachelor. Dr. Den never made a visit, except for charity, for less than twenty dollars.

Then there was Dr. John S. Griffin, a Southern gentleman, graduate of the University of Pennsylvania, who carried a brusque and somewhat forbidding mask to cover a tender, generous heart.

Another figure of those days was Dr. W. F. Edgar, a retired army surgeon of distinction. He was a delightful man, and commanded the respect of all who knew him. He bought a lot on Broadway, another on Main street, another corner of Figueroa and Washington streets, and other realty, so that his widow—still living in Los Angeles—has a valuable estate. Now and then in those early days there were in the profession those who evinced a spirit of the wild and breezy West. For instance, two physicians—still with us—who drew their "guns" on each other on Main street near Temple Block. No blood was shed and their goreless duel did much to relieve the monotony of life.

Then there was in those days Dr. Joseph P. Widney, the ideal student philosopher, and kind practitioner.

Every young physician found in him a practical friend and wise counselor. Dr. Widney is a prophet and a seer. His great work, "Race Life of the Aryan Peoples," is an authority wherever the English language is read. Dr. Widney has a charming home in the suburbs on a street that bears the euphonic name of Marmion Way.

The doctor is a profound lover of nature. His library windows command a beautiful view of the Sierra Madre Mountains. While he was away from home a church was built that cut off this view, to his great distress. He immediately made a proposition that was accepted, and at his own expense had the church torn down and rebuilt in another location. Today, as evening approaches, the doctor can sit in his library and feast his eyes and his soul on the fascinating shades and colors of the canyons, crags and peaks of our delectable mountains.

Dr. Joseph Kurtz was another stalwart figure in Los Angeles thirty-five years ago. He drove a good horse, rode in an excellent "buggy" and was always followed by his favorite bulldog. The doctor was then as ever considerate of the young physician. He was one of the founders of the Los Angeles Medical College (now U. C.) and has been a most efficient teacher there ever since.

April 8th, 1910, on the instructor's register at the college there was this entry:

"Joseph Kurtz  
Good-bye to all."

For on that day this forceful teacher, beloved by all, retired from the work.

A history of medicine in Southern California would be incomplete without the mention of Dr. Francis L. Haynes, a graduate of the University of Pennsylvania, who on account of his health left a large practice in Philadelphia and came to Los Angeles in 1887. He was a genuine APOSTLE OF ASEPTIC SURGERY. For ten years he did brilliant work for the poor as well as the rich and then death's hand was laid upon him. His surgical work attracted the favorable attention of the profession of the whole coast. He was indeed a genius.

The younger physician who comes to Los Angeles from the East and the

North and the South should read these pages and by so doing he will gain a well-merited respect for those who did the pioneer work.

Los Angeles is becoming an educational center. Its climate, fertility of soil, beauty of scenery and commercial prosperity is drawing a population that demands the best. In medicine there is an abundance of clinical material, a large corps of excellent instructors, and in addition there must be a scientific spirit that will overshadow the commercial spirit if the worthy college is to be developed. It is the hope that this modest work will do something toward quickening the conscience and pointing the way.

#### CALIFORNIA'S EXAMINATIONS—A CRITICISM.

U. S. Navy Recruiting Station, Los Angeles, Cal., Dec. 29, 1910.

While I have no doubt that the gentlemen comprising the State Board of Medical Examiners have been the recipients of criticism heretofore, I cannot in justice to the candidates for future examinations abstain from inviting the attention of the Medical Fraternity of this State to a matter that is in grave need of being remedied.

The December examinations were held in this city at the Goldberg-Bosley Academy. It was chosen no doubt for its size, because of the large number of candidates to be examined, but there is no way to heat this hall. While I can conceive of this hall being ideal for dancing, to a person sitting seven hours or over daily, cramped up over an examination pad, it was exceedingly cold. All of the hundred odd candidates suffered in consequence, and many were sick as a result of this prolonged exposure. Despite the fact that I wore a heavy cardigan under my coat, I caught a severe cold, and on the last

day of the examination I struggled through anatomy and physiology with a temperature of 102.5. I felt as though I were in for a case of pneumonia, but escaped with nothing worse than four days in bed with an attack of la grippe, and a rather tedious two weeks convalescence.

On making inquiry I find that the August examinations in San Francisco were conducted under precisely the same conditions, and my informant caught a severe cold at that time. No doubt many of the failures to pass these examinations are due to the inability of the candidates to think and write clearly under such unfavorable conditions.

Certainly this selection of a place for these examinations is scarcely a credit to a Board comprised of medical men. However, it would seem to coincide with the attitude of two or three members of the Board in conducting their parts of the examinations. At times it would have been difficult to believe that most of the candidates were the professional equals of these examiners, rather than pupils undergoing the nagging surveillance of student days.

E. M. BROWN,

San Fernando Building.

P. A. Surgeon, U. S. Navy, Retired.

Who has not seen how women bully women? What tortures have men to endure, comparable to those daily repeated shafts of scorn and cruelty with which poor women are riddled by the tyrants of their sex. Poor victims.—Thackeray.

The world is a looking-glass, and gives back to every man the reflection of his own face. Frown at it, and it will in turn look sourly upon you; laugh at it and with it, and it is a jolly, kind companion; and so let all young persons take their choice.—Thackeray.

# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

This journal endeavors to further the progress of the profession of California and Arizona.

Established in 1886 by

WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

Associate Editors:

DR. GEORGE H. KRESS, DR. JOHN W. FLINN, DR. ELBERT WING,  
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Address all communications and manuscripts to

EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

## EDITORIAL

### SMALLPOX AND VACCINATION IN CENTRAL AMERICA, SOUTH AMERICA AND CUBA.\*

We direct the attention of the readers of the "Southern California Practitioner" to the reports on smallpox from the delegates to the Fourth International Sanitary Conference of the American Republics.

Dr. Belisario Porras, delegate from Panama reports that there was not one single case of yellow fever or bubonic plague in the Canal Zone since 1905 and when in 1906 there were a few cases of smallpox in Colon, brought by a child from Cartagena, the disease was quickly controlled and no propagation took place outside of the house occupied by the sick child and two neighboring houses.

Dr. Fernando Vasquez, delegate of Honduras, reported that vaccination against smallpox is compulsory in that Republic, by virtue of a law promulgated many years ago. Doctor Nozario Toled, delegate of Guatemala said: "Last year smallpox appeared in isolated cases in several places. The patients were isolated and treated at the government's expense. Vaccination being the only known means to prevent this terrible disease the law of the Republic now makes vaccination compulsory with re-vaccination every five years. This Republic at its National Institute of Vaccine has manufactured, during the past 18 months, 400,000 doses of vaccine virus." Dr. Alfonso Quinones, delegate from San Salvador, reported that in that Republic they had just been suffering from an epidemic of confluent smallpox. Eight hundred patients were treated, of which 10 per cent. were hemorrhagic confluent small-pox, 26 per cent.

\*Transactions of the Fourth International Sanitary Conference of the American Republics. Held in San Jose, Costa Rica December 25, 1909, to January 3, 1910. Published and Distributed under the Auspices of the Pan-American Union, John Barrett, Director General Washington, D. C. 1910. Copies can doubtless be secured on application to Mr. Barrett.



were mild smallpox and the rest were confluent smallpox. The epidemic is now being controlled by vaccination and re-vaccination, the physicians rendering their services free assisted by vaccinators who travel throughout the valleys and towns of the whole country. The most of the people accept vaccination with pleasure. Dr. Hugo Roberts, delegate from Cuba, reported "not one single case of smallpox has appeared in Cuba during the last ten years, excepting cases treated in our quarantine stations that arrive from abroad." Thorough vaccination is universal in Cuba. Dr. Jose M. Soto, delegate from Costa Rica, said: "During the last twenty years smallpox has not caused a single death in this Republic. Vaccination, which is compulsory, is carried on continuously, is effected without any resistance on the part of the people, who appreciate and accept this important discovery." Dr. Martin Amador, delegate from Colombia, says nothing of smallpox but that in that Republic with a population of five million they have four thousand six hundred and thirty-nine lepers.

Dr. Manuel Camilo Vial, delegate from Chile, reported that "smallpox has been the infecto-contagious disease that has done the most damage in our country. During the present year from January first to November thirtieth in Chile we have had in the single lazaretto in San Jose 3,800 cases with 2,071 deaths, while the cases treated in houses have been incalculable. We have not yet in our country a law making vaccination compulsory, and for that reason smallpox still exists."

The showing here from the canal zone and Cuba, where the thorough methods of the sanitary officials of the

United States have been efficiently worked out, and the reports from the Republics of Honduras, Guatemala and Costa Rica where compulsory vaccination has long been enforced, as compared with the report from the Republic of El Salvador where vaccination had only recently been enforced, and with the report from the Republic of Chile where they have no compulsory vaccination, should in our opinion be convincing to those who have heretofore been skeptical in regard to the efficacy of vaccination.

#### LOS ANGELES COUNTY MEDICAL ASSOCIATION.

At the recent annual meeting of the Los Angeles County Medical Association the following officers were elected for 1911: President, Dr. W. Jarvis Barlow; Vice-President, Dr. Orville O. Witherbee; Secretary-Treasurer, Dr. George H. Kress; Councilors-at-Large, Dr. H. Bert Ellis, Dr. W. W. Richardson, Dr. Albert Soiland.

This election was fraught with serious import as the Los Angeles County Medical Association will be the chief host of the A. M. A.

We all know that Drs. Barlow and Witherbee will do the honors with honor to us all. The profession of California are indebted to them for accepting this responsibility at this critical time.

Let every physician now hunt up the Finance Committee and state what he will give towards the entertainment of the hosts whom we are to welcome to our city next June. Let us unite and give these visiting physicians such a sample of California hospitality as will warm the cockles of their hearts and make them always

retain a delightful memory of this far-away corner of "their ain countrie." Whether your subscription is ten dollars or one thousand dollars tell the committee now. They are doing a great work for us. Let us simplify where we may.

At the meeting of the County Medical Association on Friday evening, January 6th, the President, Dr. W. Jarvis Barlow, spoke of new features to be introduced for the meetings of the coming year, hoping through these suggested plans to stimulate activity in the meetings of the Society and make the evenings more interesting and profitable. The ideas that have been suggested and plans formulated are as follows:

After the reading and discussion of the scientific paper of the evening, and as an accessory to the programme of the first meeting of the month, there will be ten minutes given by four different men on what has occurred in the current medical literature for the past month, German, French, English and American. Short abstracts will be taken on interesting subjects from the medical journals and we shall be informed what is new and worthy of further consideration. This work on current literature will be done: surgical and medical from the French by Dr. A. S. Lobinger; surgical and medical from the German by Dr. R. L. Cunningham; surgery from the American and English by Dr. J. C. Hollister; medicine from the American and English, Dr. Dudley Fulton. It will probably be necessary to confine each paper to ten minutes; in this way it

will be quite possible for those of us who do not take the different magazines not sufficient time to look them over, to keep in touch with what is being done in several countries.

For the second meeting of the month also after an accessory to the scientific paper will be introduced an historical sketch of medical work and literature of the different centuries, each month being divided into periods. The first, of course, would occupy the ancient medicine and surgery, the pre-Hippocratic period. The second month, I believe, should be occupied with the time of Hippocrates. The third from Hippocrates to Galen and so on. Several men have kindly consented to help this arrangement of historical medicine.

I believe it would do us all good to have this review and know more of the great professional men of the past. These features will be introduced with the first meeting in February 1911. Each of the members can help by their attendance and discussion.

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#### LOS ANGELES MEET A. M. A., JUNE 26, 1911.

Minutes of a joint meeting of the Committees on halls, hotels and non-affiliated societies. Time and place of meeting, Friday evening, December 9th, at 8 p.m., in the office of Dr. H. Bert Ellis.

Present were: Doctors Ellis, Smith, Ferbert, Powers, Soiland, Mattison, Davis, Hastings, Fulton, Brainerd, Roberts and Kress.

Dr. Ellis stated the object of the meeting, namely: to decide upon halls

for the different sections and hotel headquarters for the sections.

Dr. Ferbert, the Chairman of the Committee on Halls, presented a report giving the list of halls for which he had made tentative contracts.

After discussion it was finally decided to assign the sections to the following halls:

Sections.	Hall.	Capacity.
Medicine, Simpson Auditorium...		1000
Nervous, Walker's, large.....		700
Children, Walker's, Grant.....		500
Dermatology, Walker's, Cleveland		250
Pathology, Walker's, Roosevelt...		250
Surgery, Temple Auditorium....		3400
G. U., Temple Auditorium Corral		400
Women, Temple Auditorium, small		300
Preventive Medicine, Y. M. C. A.		
Pharmacology, Y. M. C. A.		
Eye, Parish-Gamut-Blanchard.		
Ear, Parish-Gamut-Blanchard.		
Stomatology, Dental College.		

The matter of hotel headquarters was then discussed and the following assignments were made:

Sections.	Hotels.
Medicine—Lankershim.	
Nervous—Westminster.	
Children—Westminster.	
Dermatology—Hollenbeck.	
Pathology—Hollenbeck.	
Surgery, Gen. Headqtrs.—Alexandria.	
G. U.—Hollenbeck.	
Women—Hayward.	
Preventive Medicine—Alexandria.	
Pharmacology—Lankershim.	
Eye—Van Nuys.	
Ear—Angelus.	
Stomatology—King Edward.	
Gen. Headquarters—Alexandria.	

Meeting then adjourned.

GEORGE H. KRESS, Secretary.

## BARLOW MEDICAL LIBRARY.

The annual meeting of the Barlow Medical Library was held in the Library, 740 North Broadway, at 8 p.m., Wednesday, Dec. 21. The financial statement showed a small cash balance. There are 41 patrons, 5 associate members and 24 annual members, making 70 physicians who are actively supporting this institution.

The report of the usefulness of the Library showed that there had been 3,435 visitors during the year closing Dec. 15th, 1910. This is an increase of 17 per cent. over the attendance during the previous year, which shows that the Library is steadily becoming more useful.

To be a patron costs \$25 per annum, and an associate member \$5 per annum and an annual member \$1 per annum.

There are numerous members of the profession who might readily take one of these memberships and not only assist financially, but give the whole work encouragement. The profession of Southern California are not only learning to use this valuable collection of books and journals, but they are also learning the use of the very efficient Librarian in collecting data for the papers they may wish to write. Every physician should put a little clause in his will giving at least a few of his medical books to this Library or a cash gift with which to purchase books. Let us look to the future and put this valuable institution on a basis that will reflect credit on Southern California. Miss Weir is the Librarian. The telephone is A9721.



**ETHYL CHLORIDE—A WARNING.**

The impression is widely prevalent in the profession that ethyl chloride is almost as safe as nitrous oxide gas as an anesthetic for minor operations, which require only a short time.

In the determination of such questions the statistical method is the only one available, despite the fact that it must learn some factors inadequately considered.

The Committee on Anesthesia of the American Medical Association has approved the publication of an article on this subject by H. C. Wood, Jr. (The Journal A. M. A., Dec. 24, '10.) Wood points out the facts that because of its quick and transient action ethyl chloride can only be fairly compared as an anesthetic with nitrous oxide gas and that comparisons with chloroform and ether are deceptive and unreliable. But for the sake of comparison, admitting the drawbacks, Miller and McCardie report 51,507 cases of ethyl chloride anesthesia with nine deaths, a mortality of 1 in 5,710; H. C. Wood's Therapeutics reports the mortality in several million cases of chloroform anesthesia, as 1 in 3,500, and for ether, 1 in 15,000, and the commonly accepted mortality of nitrous oxide gas is 1 in 1,000,000.

Again the safety of an anesthetic depends upon three factors: (1) the range between the amount required to produce unconsciousness and that required to kill; (2) the character of the signs which indicate impending danger; and (3) the suddenness with which death occurs. Miller says that the danger signals of ethyl chloride are easily overlooked even by an ex-

pert, and that death has occurred in the fatal cases in from one-half to less than five minutes.

When the commonly accepted mortality of nitrous oxide gas, 1 in 1,000,000, is placed in contrast with that of ethyl chloride, 1 in 5,710, only a glance is needed to convince even the most careless or skeptical of the tremendous moral responsibility which rests upon those who use the latter agent. Convenience or curiosity are the only motives which can be given in defence of the use of ethyl chloride as an anesthetic, and neither of these can stand for an instant, in a sensitive conscience, against the appalling calamity of even one death.

Wood says that some may think his condemnation of the use of ethyl chloride is too harsh, but no condemnation can be too harsh of a choice of an anesthetic which is 200 times as dangerous as nitrous oxide gas. E. W.

**ARIZONA MEDICAL ASSOCIATION  
TO MEET IN LOS ANGELES.**

The twentieth annual session of the Arizona Medical Association will be held in Los Angeles, June 26th, 1911.

This rather radical change of arrangements was decided on by the executive committee of the Association, after very mature deliberation and after having consulted with quite a large number of members in different parts of the Territory. When it became known that the American Medical Association was to meet in Los Angeles, the Executive Committee was soon forced to the conclusion that very few of its members would attend both the meeting of the Ari-

zona Association at Bisbee and the American Association at Los Angeles. As this committee was anxious that a large number of the medical men of Arizona should attend the Los Angeles meeting of the American Medical Association, it finally decided to hold the meeting of the Arizona Association in Los Angeles, immediately before the meeting of the American Association.

The Arizona Medical Association will be called to order early on the morning of Monday, June 26th. All the work of the Council and of the House of Delegates will be finished that day. The orations and a number of papers will be read at the general meeting. At the end of the afternoon session, the general meeting will adjourn to attend the several sections of the American Medical Association, during the four following days. The annual banquet of the Association will be held Monday evening.

It is very desirable that every medical man in Arizona should endeavor to avail himself of this opportunity to attend the first meeting of the American Medical Association held in our own borders, and to assist in making the Los Angeles meeting the greatest in the history of that Association.

J. W. F.

Prescott, Arizona, January 1, 1911.

#### THE STATE BOARD OF MEDICAL EXAMINERS.

The California State Board of Medical Examiners held their examination in Los Angeles December 6th to 9th inclusive, 1910.

The Board were all present except-

ing Dr. Vanderburgh, who had a short time before been the victim of an automobile accident. The Secretary made an encouraging report of the work of the Board in the prosecution of illegal and criminal practitioners. This work is now being carried on vigorously under the supervision of Secretary Dr. Tisdale.

There were 96 applicants, but one dropped out the first day owing to a telegram from his home in the East. Of the 95, 63 per cent. passed successfully. The following is the list of those who gained the required percentage:

San Francisco, Cal., Dec. 25th, 1910.

In accordance with the law and the rules of this Board, the following were granted certificates:

Allen, Wm. Eaton.  
 Andrews, Laurin Lundy.  
 Bartosh, Wm.  
 Boland, Arthur E.  
 Bowen, Fred Phelps.  
 Brown, Douglas.  
 Brown, Earle Mason.  
 Burns, Marion L.  
 Butterfield, Rupert O.  
 Carmichael, Mary F.  
 Chapman, Wm. H.  
 Carlton, Albert Tutton.  
 Collar, Emily.  
 Colloran, Maud L. Atherton.  
 Comstock, Belle Jessie Wood.  
 Cook, Ethel M.  
 Crosswell, Mary S.  
 Davis, M. Louise.  
 Elder, Avon Rexford.  
 Fogg, Edward S.  
 Gottlieb, Abraham.  
 Graham, Richard Watson.  
 Hall, A. H.  
 Hansen, Agnes Emilie.  
 Hart, Lasher.  
 Heiges, Laurence E.  
 Hollister, Geo. S.

Janss, John.  
 Klein, Walter C.  
 Lamb, Susan L. Halverson.  
 Lochr, Bert E.  
 McMullen, Walter M.  
 Mann, Edward C.  
 Mapes, Reynolds J.  
 Markolf, Harry Foster.  
 Moore, Olive A. F.  
 Murray, Jas. T.  
 Newton, Oran.  
 Palmer, Byron.  
 Peters, Lulu H.  
 Phelps, Carl E.  
 Prentice, Geo. Lee.  
 Preston, Walter A.  
 Reynolds, Harriet C..  
 Reynolds, Ralph W.  
 Robinson, W. M.  
 Rogers, Thomas L.  
 Rothwell, Wm. Thomas.  
 Sickler, Louis Napoleon.  
 Simpson, Wade E.  
 Skinner, Bertella K.  
 Stephenson, Mabel A.  
 Sutton, Emilie Victoria.  
 Swift, Percy Edw.  
 Utter, J. W.  
 Wells, Geo. S.  
 Werner, Ewald Alfred S.  
 Wicherski, Otto Gustav.  
 Wilcox, Emma D.  
 Wilkinson, Arthur J.

#### THE AMERICAN ACADEMY OF MEDICINE.

The American Academy of Medicine will meet in Los Angeles next June, on the Saturday preceding the meeting of the American Medical Association.

The Academy of Medicine was organized as a protest against the lax methods of the medical schools of the United States. The requirements for membership in the Academy are such as to include those of University training, and also those whose at-

tainments are such as to place them in point of culture on a footing with university graduates. The Academy recognizes the fact that there are many men who graduate from the university of self-culture and self-training who can well represent all that the Academy stands for.

From the first it was expected that the Academy would do pioneer work in certain lines not strictly medical, and yet intimately related to the progress of medical science. It has adhered to this ideal, as the list of papers read at its meetings shows, having in view public health, education and the advancement of the profession in all matters that relate to medical sociology. The papers read at the last meeting on the "Social Plague" are in themselves a treatise on the subject, and ought to be widely read by the general public.

The Academy made a long, lonely and hard fight for higher standards of medical education, and it was by doing this work and by persistent hammering at the subject that finally started the movement that has become national. The Academy of Medicine, therefore, did the pioneer work for higher medical education. Its investigations of medical colleges were begun before Flexner ever thought of the matter, and before the council of education was created.

The work of the Academy is done by comparatively few men. Their papers and discussions are not published in medical journals and are probably not widely read by the profession. Their work, therefore, has less of the picturesqueness and at-



tractiveness of that of the medical associations.

The Bulletin of the Academy, under the management of its able and unselfish secretary, Dr. Chas. McIntire, represents the highest standards of medical education and professional ideals. The Bulletin was the first to tabulate the reports of the State Examining Boards, and many of the advances in better methods that the profession had adopted were originally suggested by members of the Academy, through the Bulletin.

The Academy originated the movement which has recently created the Association for the study and prevention of infant mortality, and it will go on originating other movements. This pioneer work is not specially attractive to many people, and it always has to overcome the inertia and conservatism of those who dislike change.

There should, however, be some organization where these matters of medical sociology can be presented and discussed, separate from strictly medical discussion, and it is for this that the Academy exists. J. H. McB.

#### THE DRUG VALUE OF ALCOHOL.

Whether alcohol has any value in the treatment of disease, and how to give it to secure the best results, provided it is used, are questions which never long remain settled. Many physicians condemn its therapeutic use upon purely sociological grounds, and no quarrel can be made with them since few drugs are absolutely essential. Others condemn it because it is generally easier to avoid vexed questions than to settle them intelligently.

But better proof of the value in medicine need not be asked than the very fact that these questions do not remain settled for any long period.

That alcohol is a cardio-vascular stimulant is asserted by every physiologist of clinicism who has ever investigated it. That in small quantities it stimulates appetite and aids digestion is equally well established.

Abraham Jacoby contends that there is no better or purer antiseptic, and that, in cases of grave sepsis in diphtheria, cases in which antitoxin is of no effect, alcohol will save lives. He uses whisky and claims that no dose is too large, and until the sepsis has disappeared it is impossible to induce alcoholic intoxication in these cases.

In an individual who is not habituated to its use it is possible to produce a sense of well being with small doses which may be an early stage of ordinary alcoholic intoxication but which stops short of any other evidence of it, and which in some forms of illness may be a therapeutic resource of great value.

A drug must be of great value in the practice of medicine which is an aid to digestion, or stimulant analgesic, or cardio-vascular stimulant, and capable of successfully combatting otherwise fatal sepsis. It is of course possible to practice medicine successfully without it, as was done by the late Nathan Smith Davis, whose memory we all delight to honor, but it is a safe assertion that in treating acute diseases the successes of all physicians depend more upon the *vis medicatrix naturae* than upon drugs.

Richard Cabot says that it is impossible to use absolute alcohol because of its disagreeable taste, and Jacoby says that plain American whisky answers every purpose, because it does the work; and these opinions cover the ground of forms of administration fairly well.

This article is the result of an impulse caused by reading Dr. Joseph L. Miller's paper on "Alcohol in Acute Infections," The Journal A.M.A., December 19, 1910.

E. W.

#### REPORT OF LOS ANGELES COUNTY MEDICAL MILK COMMISSION.

##### MEMBERS OF COMMISSION:

Dr. Fitch C. E. Mattison, Chairman, Pasadena.  
Dr. George H. Kress, Secretary, Los Angeles.  
Dr. L. M. Powers, Los Angeles.  
Dr. Stanley P. Black, Pasadena.  
Dr. Truman J. Coffey, Los Angeles.  
Dr. H. B. Sushman, Pasadena.  
Dr. Jas. H. McBride, Pasadena.  
Dr. E. B. Hoan, Pasadena.  
Dr. W. L. Zwick, Pasadena.

Address all correspondence intended for the Milk Commission of the Los Angeles County Medical Association, or for its Chairman, or for its Secretary, to

ROOMS 326-333,  
CHAMBER OF COMMERCE BUILDING,  
PASADENA, CAL.  
THE MILK COMMISSION  
OF THE  
LOS ANGELES COUNTY MEDICAL  
ASSOCIATION.  
Pasadena, California.

The Medical Milk Commission has been in existence some three years and, we feel, has arrived at a period when many of our early experiences and disappointments have been mellowed by time; still the path of your Milk Commission is not strewn with roses by any manner of means.

The first year of our certification was particularly trying as the inspection was done by members of your commission, the bacteriological counts and all milk examinations by Dr. Black, and we charged a certain fixed sum for certification slips, the thought being, that we would save what money we could for educational purposes. As

you will see by our first report, we had a balance of \$157.75 on hand, over and above the cost of caps and certification slips. This we used for educational purposes in the purchasing of photographs and making of slides, the giving of public lectures and other incidental expenses incurred in the campaign of education. This was not only confined to milk, but materially to lectures on general public health matters—the prevention of Tuberculosis; the proper disposal of sewage and garbage; and a general campaign for clean milk.

The results of this work have been manifested in many ways. We can point with considerable pride to the improvement among all our dairies in Los Angeles county.

In 1909 we charged the dairy \$30.00 a month for the first ten months and furnished them certification slips, they purchasing their own caps and sealing device. During the past year and until the past month, we have charged them \$35.00 per month for certification, and we have had a veterinarian make at least two inspections and examinations of the dairy each month, and Dr. Black has made on an average of two bacteriological counts each month.

You see that at the present time we are charging a little more for certification and are trying to get a little money ahead to further the interests of clean milk, and expect to spend any balance in education for clean milk. This has been the policy of your Commission in the past, and we feel very much gratified by the results of our work.

The Arden Dairy, the only dairy that we have been certifying to, has been making very extensive improvements; they are milking on an average of 125 cows a day, and usually have from 40 to 50 dry stock on hand. The general

condition of the herd is most excellent. Quite extensive improvements have been made during the past summer in the way of additions to the feeding sheds and general improvements as to drainage and disposal of manure.

The bacteriological count has in the main been very good, occasionally the count runs up; but we have found it has many times been due to improper handling of the milk after it has left the dairy, and especially to the milk delivery in Los Angeles, which most of the time has been delivered in the summer months, uniced. We feel that we have completed arrangements whereby this can be overcome, and the delivery of milk in the future will be facilitated by having it sent in by automobile, rather than shipped by electric express.

For the past year the delivery of milk in Los Angeles city has been by one of the large creamery companies, and we have found in tracing up all complaints referable to the milk in Los Angeles, that it was in the main due to the fact that the milk was not kept iced until the time of delivery to the consumer. We have arranged with the Arden Dairy to deliver their own milk in Los Angeles. They will send it in by an automobile truck, using their own wagons in delivery. This will insure the icing of the milk up to the time of its delivery to the consumer.

This has been made necessary on the part of the Commission by the fact that the Creamery Company who have been delivering this milk, have arranged to make all deliveries of milk at night; that would make it necessary for the milk to remain uniced from the time of delivery at the customer's door until such time as the family could place it on ice in the morning.

We feel assured that the new arrangement will be much more satisfactory and will insure a better supply of milk.

The Commission feel anxious for the co-operation of the members of the County Medical Society, feeling that a just criticism is always acceptable, and many times is of great assistance in improving the standard of the milk. We feel that if at any time there is any trouble with the milk, if the members of our Society will let some member of the Commission know of it, proper steps can immediately be taken to correct the trouble, as every complaint is immediately investigated, either by the Inspector or by the Dairy themselves.

Respectfully submitted,

FITCH C. E. MATTISON,

Chairman.

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#### THE SOUTHERN CALIFORNIA MEDICAL SOCIETY.

The 44th semi-annual meeting of the Southern California Medical Society was held in Los Angeles at the Hotel Hayward on the 7th and 8th of December.

The first part of the program was a joint meeting with the Southern California Public Health Association, of which Dr. W. W. Roblee of Riverside is president. The latter part was in charge of the American Laryngological, Rhinological and Otological Society (Western Section), of which Dr. W. H. Dudley of Los Angeles was chairman. The following papers were read:

"Relation of Hydrophobia to Public Health," by Stanley P. Black of Pasadena; "Acute Poliomyelitis," Dr. W. A. Edwards of Los Angeles.

The regular program of the Society began at 2 p.m. with the following papers:

"Early Diagnosis of Spinal Cord Tu-



mors," with special reference to Surgical Treatment, Dr. Ross Moore, Los Angeles. Discussion opened by Dr. W. W. Richardson.

"Diagnosis of Fractures," Dr. Bernard J. O'Neill, San Diego. Discussion opened by Dr. Eliot Alden.

"Some Mental Factors Concerned in the Production of Neurasthenia," Dr. G. V. Hamilton, Montecito. Discussion opened by Dr. H. G. Brainerd.

"The Present Status of Gastric Carcinoma," Dr. W. P. Millsbaugh, Los Angeles. Discussion opened by Dr. L. G. Visseher.

WEDNESDAY EVENING, 8:00 P.M.

"Symposium on Duodenal Ulcer," (Arranged by Dr. W. A. Edwards).

"Pathology," Dr. C. C. Warden, Los Angeles.

"Diagnosis," Dr. E. C. Moore, Los Angeles.

"Medical Treatment," Dr. D. J. Frick, Los Angeles.

"Surgical Treatment," Dr. W. A. Edwards, Los Angeles.

"Complications," Dr. J. J. A. Van Kaathoven, Los Angeles. Discussion opened by Dr. Andrew Stewart Lobin-gier and Dr. Dudley Fulton.

THURSDAY, DEC. 8TH, 9:30 A.M.

"Constipation," H. S. Gordon, Santa Ana. Discussion opened by Dr. W. H. Kiger.

"Infections of the Sub-Maxillary Gland," with a report of a case of Ludwig's Angina, Dr. W. W. Roblee,

Riverside. Discussion opened by Dr. Stanley Black.

"Mind, Brain and Medicine," Dr. Hamilton Forline, Redlands.

The following officers were elected for the ensuing year: Dr. C. D. Ball, President, Santa Ana; Dr. W. T. McArthur, 1st Vice-President, Los Angeles; Dr. Gayle G. Moseley, 2nd Vice-President, Redlands; Dr. John A. Colliver, Secretary and Treasurer, Los Angeles.

The Executive Committee, of which Dr. F. R. Burnham was chairman, reported San Diego as the next place of meeting. On account of the A. M. A. meeting in June, it was decided to omit the next May meeting, so the next will be on the 6th and 7th of December, 1911.

After adjournment the Society entertained the visiting physicians and friends with a theater party at the Orpheum. A few local hits were made from the stage but the most enjoyable feature of the evening was the souvenir programs containing the cartoons and fake "ads" of the leading city members. Get a program and lock it over again. If you can't find one, wire Dr. Granville MacGowan—he got more than was coming to him. The parties responsible for starting this affair were Drs. Albert Soiland, Frank W. Miller and Arthur Godin—the Committee on Arrangements.

J. A. COLLIVER, Secretary.

## EDITORIAL NOTES

Dr. R. D. Potts formerly of Oxnard is now selling real estate in San Antonio, Texas.

The engagement is announced of Dr. Bertrand Smith and Miss Marion Macneil, both of Los Angeles.

Dr. Ira E. Huffman, Vice-President of the Arizona Medical Association, has been elected Mayor of Tucson.

Dr. J. O. Chiapella, well known in Hollywood and Los Angeles, is located in Ripon, San Joaquin County, California.

Dr. C. H. Hughes, the distinguished St. Louis alienist, has already made reservations in a Los Angeles hotel for the Los Angeles meeting of the A. M. S.

Dr. W. S. Davis, formerly of Fullerton, has purchased a 20-acre orchard and lemon grove in Corona, Riverside county, and will practice medicine in that city.

Dr. Win Wylie of Phoenix has been appointed chief surgeon of the Epes-Randolph Railroads in Arizona, in succession to the late Dr. Geo. A. Goodfellow.

At the meeting of the Santa Barbara Medical Society, held on the evening of Dec. 12th, Dr. Benjamin Bakewell read the stated paper on Infant Feeding.

Dr. J. A. Ketcheside has resigned the position of Superintendent of the Territorial Hospital for the Insane at Phoenix. The doctor will resume practice at Yuma.

At the meeting of the Pasadena Medical Society on the evening of the 13th, Dr. W. C. Dilworth was elected president, Dr. Elliott Alden secretary and Dr. J. E. Janes counselor.

Dr. C. E. Zerfing, Chief Police Surgeon of Los Angeles, has returned from a month in the East inspecting hospitals, sanitarium and laboratories.

Mrs. Albert Crutcher, the able president of the Board of Directors of the Children's Hospital of Los Angeles, announces that the plans for a new \$75,000 building are now being completed.

Dr. Benjamin Ide Wheeler, in his annual report of the University of California says: "The scholarship of men in the fraternities falls seriously below that of the average male student."

The daily papers announce that Dr. W. J. Geiermann will expend \$200,000 in Altadena in building an institution, which he says will be a hygienic institution, based upon the best methods of the University of Vienna.

Dr. Harvey L. Thorpe is now located in the Wilcox building, Los Angeles. While Dr. Thorpe occupies offices jointly with his brother, Dr. Lewis S. Thorpe, the oculist, yet he will devote himself to general practice.

A County Society has been organized in Gila county, Arizona, with the following officers: President, John E. Bacon, Miami, Arizona; Vice-President, R. C. Kennedy, Globe, Arizona; Secretary-Treasurer, John L. Wales, Globe, Arizona.

Dr. John C. Hollister has left Chicago and located in the Auditorium, Fifth and Olive streets, Los Angeles. We all remember the Doctor's very interesting paper that began the volume of the "Southern California Practitioner" for 1910.

On the evening of Dec. 13th the Redlands Physicians' Club had a symposium on Infantile Paralysis. Dr. W. B. Powers read a paper on the Pathology, Dr. W. P. Burke on the Symptomatology and Dr. Hamilton Forline on the Treatment.

At the state board's medical examination in Los Angeles in December, of the 95 applicants, 28 were women and 67 were men. Of those who passed, 60 were men and 16 were women. Of those who failed, 25 were men and 12 were women.

Dr. Arthur C. Thorpe and Miss Florence Chase were married Wednesday evening, November 30th. Dr. Thorpe has been practicing in Los Angeles for about twelve years and is one of our busiest practitioners. They are now located at their home, 920 W 20th St.

Dr. Wm. H. Austin, an old and well-known resident of Long Beach, died December 23rd. Dr. Austin was 73 years of age and practiced medicine for forty years in Abilene, Kansas. Removed to Long Beach in 1895. He

was a surgeon in the army during the Civil War.

At the annual meeting of the Riverside County Medical Society, held Monday evening, Dec. 12th, Dr. H. A. Atwood was elected president, Dr. Karl Sleeper vice-president, Dr. G. E. Tucker secretary and treasurer. Dr. Louise Harvey Clark read a paper on "Cancer" and Dr. Tucker on "606."

Dr. Roscoe C. Olmstead, Inspector of Schools of Pasadena, says that one-third of the school-children of that city are physically defective. Of course the term defective applies to the condition of the teeth, skin, ears, eyes, throat and all other abnormal conditions.

The people of Riverside have located a camp for the tuberculous about four miles east of that city. The institution will be known as the Bach Springs Sanatorium and its purpose is to provide a place where the tuberculous may receive good care at a minimum of expense.

Dr. F. J. Smith, medical examiner for the San Diego schools, in a recent report said he had examined over 350 children. The most prevalent defect among these was decayed teeth, a shockingly large per cent adenoids, enlarged tonsils; eye and ear defects followed closely.

Dr. E. Dewitt Connell, the well-known oculist of Portland, Oregon, has been spending his vacation in Los Angeles. During his stay here, Dr. Connell made many friends amongst the profession and was a frequent visitor at the various hospitals. The doctor graduated from the University of Pennsylvania in 1895.

Dr. P. C. H. Pahl was elected secretary of the Board of Trustees of the Barlow Medical Library at the recent meeting. Dr. Pahl succeeds Dr. Geo. H. Kress who retires owing to

the arduous work as secretary of the Executive Committee of the A. M. A. meeting. Dr. Henry H. Sherk of Pasadena was elected trustee succeeding Dr. Kress.

Dr. W. H. Ward, a former President of the Arizona Medical Association, and for a number of years Superintendent of the Territorial Hospital for the Insane at Phoenix, is visiting friends at Mayer, Arizona. A few years ago Dr. Ward retired after sixty-two years of active practice in the profession. He is now living at Long Beach, California.

Dr. William H. Flint, who was so well known and highly respected as a Santa Barbara practitioner, has purchased an apple orchard near Portland, Oregon, and located there where he will take his ease in horticultural pursuits. Dr. Flint graduated from Bellevue Hospital Medical College in 1877 and has an enviable standing with his medical brethren.

Dr. E. O. Sawyer was recently elected County Health Officer of Los Angeles county, succeeding Dr. O. R. Stafford. The position pays \$125 per month. Dr. Stafford held the position for some time. He graduated from the College of Medicine of the University of Southern California, class of 1901. Dr. Sawyer graduated from the Starling Medical College of Ohio, 1880.

The annual meeting of the Seaside Hospital Association of Long Beach was held December 21st when Dr. L. A. Perce declined re-election as president and Dr. J. W. Wood was placed in that office. Dr. F. L. Rogers declined re-election to the office of secretary-treasurer and Dr. V. Ray Townsend was elected to that position.

Dr. D. W. Mott, or we should say, Honorable D. W. Mott, assemblyman-elect, from Santa Paula, Ventura county, was the guest of honor at a



banquet given by the leading lawyers and doctors of that county at the principal hotel in Ventura. The people of Ventura have acted wisely in electing this able physician and intelligent citizen as a member of our law-making body.

Dr. W. Humes Roberts of Pasadena has returned from a three-months touring of Scotland and England.

The salary of the Police Surgeon of Los Angeles is now fixed at \$200 per month, with three Assistant Police Surgeons at \$110 per month and five receiving hospital nurses at \$75 per month each.

Dr. G. E. Tucker, County Health Officer of Riverside county, has been authorized by the supervisors to purchase 2000 lbs. of poisoned wheat. A relentless campaign will be waged against ground squirrels the coming year. Aside from the danger to health from the great army of ground squirrels, they destroy enough grain to support all the poor families in that county.

At the meeting of the San Bernardino Medical Association on the evening of the 20th, Dr. C. C. Browning told of his visit to the sanatoria in Europe. He also spoke on the conditions in Ireland concerning tuberculosis. Laws have been passed in Ireland that provide for great improvement in housing and these laws have helped wonderfully towards bettering the conditions there.

Dr. D. H. Calder, superintendent of Utah Hospital for the Insane at Provo, Utah, spent December in Los Angeles. The Doctor usually drops in on us about twice a year. He made the pleasant statement that "I have no doubt whatever that Los Angeles will be well above the million mark in pop-

ulation in the next census. Yet when one considers what God has done for this region, it is no wonder so many people come here."

The president-elect of the American Medical Association, Dr. John B. Murphy of Chicago, and the first vice-president, Dr. Edward E. Montgomery of Philadelphia, will feel very much at home in Los Angeles at the session of the A.M.A. that begins here the 26th of next June. They have both made extended visits to Southern California and have many loyal friends here who will give them a hearty welcome.

Dr. Mary E. Bates, a distinguished Denver physician, has been visiting in Los Angeles, where she has been the recipient of dinners, teas, receptions and finally a banquet at the University Club. Dr. Bates graduated from the Northwestern University, Medical Department, and then took an extended post-graduate course in Vienna. Her many Los Angeles friends were delighted to see her. She is one of the original insurgents.

Dr. J. M. Wheat died at Redlands November 26th, at the age of eighty-five years. He was born in Franklin, N. Y., and graduated from the Albany Medical College in 1853. Dr. Wheat removed to Minnesota soon after his graduation and was a member of the Minnesota legislature for several years. He has been practicing medicine in Redlands since 1887 and much of the time has been a member and secretary of the Board of Health of that city.

Dr. W. J. Chambers of Los Angeles, who has his offices in the Fay building, and Miss Rosslyn Catherine Den, descended from one of the oldest California families, were married in the

Memorial Baptist Church on Dec. 16th. Dr. Chambers graduated from the Jefferson Medical College in the class of 1901 and was until recently a member of the Los Angeles Board of Health.

Dr. Geo. E. Goodfellow, who graduated from the University of Wooster, Cleveland, Ohio, in 1876, died in Los Angeles after an illness of six months on Dec. 7th, 1910. Dr. Goodfellow has been noted as a surgeon in Arizona and California for the last twenty-five years. For several years he has been chief surgeon of the Arizona eastern railway lines and other Southern Pacific railroad branches. He had been actively engaged in practice until six months ago, when he suffered a general breakdown. Dr. Goodfellow had a brilliant intellect, a generous nature and was a delightful companion. He leaves a widow and two sisters. One of his sisters is the wife of C. W. Fish of Los Angeles. He also leaves a married daughter, Mrs. Edith Harvey. Dr. Win Wylie of Phoenix, Ariz., has been appointed to succeed him in his railway positions.

The funeral of Dr. Christian Archibald Herter who died in Santa Barbara was held in that city December 20th. Dr. Herter was graduated from the College of Physicians and Surgeons, New York, in 1886, and afterwards took post-graduate work under Professor Welch at Johns Hopkins and Professor Forel, Zurich, Switzerland. His text-book, "The Diagnosis of the Diseases of the Nervous System," was published in 1894. In 1897 he received an appointment as professor of pathological chemistry at Bellevue Medical College. In 1903 he was called to the chair of pharmacology and therapeutics at the College of Physicians and Surgeons, a position he held till his death. For ten years

he was visiting physician to the New York City Hospital on Blackwell's Island and was the physician of the Rockefeller Institute Hospital, and had done much in the last two years of his life to work out the plan on which that institution will be managed.

The California Hospital was invited by the Aviation committee to establish and conduct a small field hospital on the Aviation field. Through the courtesy the Pacific Surgical Co. the little building put up for the purpose was thoroughly equipped and ready to receive patients December 24th, 1910. From this date until Jan. 2nd, 1911, the date for closing the meet, the nurses of the hospital with the assistance of two surgeons and the Los Angeles Ambulance Co. cared for the unfortunate ones. With the one sad exception the cases were minor accidents quickly relieved. On Dec. 31st it was their sad duty to care for the great aviator Archibald Hoxsey. When brought to the hospital by the ambulance he was beyond human aid and how he died will forever remain a mystery. His poor broken and bruised body was tenderly cared for and made ready for its last journey while his friends stood by with tears in their eyes for the loss of the man whom every body loved and who had broken the worlds records.

Three physicians from Southern California have been elected to the California legislature. Dr. David Wallace Mott of Santa Paula, Ventura County, who has been practicing in Santa Paula for nearly twenty-five years, graduated from the medical department of the University of Michigan in 1881 and is a man of sterling worth. Dr. Edwin M. Butler graduated from the American Medical College, St. Louis, in 1883, and has been practicing in Los Angeles for fifteen years.

While a modest, quiet man, Dr. Butler is at the same time a forceful public speaker. Dr. John L. Avey of Redlands graduated from the medical department of the University of Louisville in 1891 and has been practicing in Redlands for the last nine years. Drs. Mott and Butler are members of the Assembly, while Dr. Avey is a Senator. Neither of these physicians is giving up his practice, but each one is simply taking a two months' vacation at California's capital. They have accepted a great responsibility as this is a crucial time in the political history of California. From our knowledge of these three gentlemen we have no doubt but that they will work together for the good of California and for the purification and elevation of the medical profession.

Dr. W. W. Keen has been operated on for abdominal complications and has made excellent progress toward recovery. Knowing the interest that his many friends and former pupils have in his health, "The Journal" secured from an authoritative source the following statement:

While abroad last summer, Dr. Keen experienced some symptoms of intestinal trouble. He was examined by Dr. George A. Gibson in Edinburgh, by Dr. W. Hale White and Mr. Mummery in London, and later in Berlin by Prof. Eiselsberg of Vienna. All of them discovered an obscure tumor in the left lower abdomen. On having these facts confirmed and after consultation with his advisers, Dr. Keen decided that an abdominal section was the only positive way to determine whether the mass was a carcinoma, as seemed most likely at his age, or was nonmalignant in character, and whether or not it was operable. Accordingly, he was operated on November 9. It was found that the tumor

was due to a perforating diverticulitis of the sigmoid with dense adhesions and moderate obstruction. There were two fecal stones, one of which had perforated and lay in a pocket outside the intestinal wall. It was necessary to remove a portion of the sigmoid.—*Journal A. M. A.*

Whereas, It is the duty of the California State Board of Health to encourage and maintain a progressive campaign against all communicable and avoidable diseases which may endanger the health of the citizens of the State; and

Whereas, The communicable diseases due to syphilis and to gonococcus infections are among the most prevalent and most harmful known to medical science; and

Whereas, The policy of the State Board of Health, of physicians, and of educators, has hitherto been one of silence on this subject; therefore, be it

Resolved, That the California State Board of Health declares that beginning January 1, 1911, syphilis and gonococcus infections shall be reportable, and shall be placed on the list of communicable diseases which local boards of health and health officers are required to report to the Secretary, it being provided, however, that until further action by this Board, physicians may report the facts concerning these diseases by office numbers instead of names of patients; be it further

Resolved, That this Board officially calls the attention of the citizens of California to the contagious and infectious nature of these diseases, and requests their co-operation in combating them by every available means—educational, sanitary, medical, social and moral.

By order of the Board.

Signed: William F. Snow, Secretary.  
Sacramento, Cal. October 1, 1910.



It is delightful to be remembered. The following characteristic electro-plated tablet brightened the office of the editor of the "Southern California Practitioner" on the first day of the new year.

Liberty and Law, Equality of Opportunity, Industrial Freedom			
<i>Frangas, non flectes. Sapiens qui vigilat.</i>	H. G. O.	<i>"Stand fast, stand firm, stand sure, stand true."</i>	
	1837 } 1859 }		<b>Holiday Greetings — 1910</b>  <b>FROM</b>  <b>GEN. HARRISON GRAY OTIS,</b>  with timely salutations,  <b>TO HIS FRIEND</b>  <b>DR. WALTER LINDLEY.</b>   <i>Dieu te garde!</i>  <b>Health, long life and happiness!</b>
	1833 } 1904 }		<b>"Ours"</b>  Dec. 4 1881  Oct. 1 1910  Aug. 1 1882  Dec. 25 1910
	1861 } 1865 }		
	1898 } 1899 }		
<i>"Lord God of Hosts! be with us yet,  Lest we forget, lest we forget!"</i>			

We wish General Otis many happy and prosperous New Years.

## BOOK REVIEWS

**DISLOCATION AND JOINT-FRACTURES.**  
By Frederick Jay Cotton, A.M., M.D.,  
First Assistant Surgeon, Boston City Hos-  
pital. Octavo of 654 pages, 1201 original  
illustrations. Philadelphia and London:  
W. B. Saunders Company, 1910. Cloth,  
\$6 net; Half Morocco, \$7.50 net. W. B.  
Saunders Company, Philadelphia and Lon-  
don.

A reaction from the benumbing Ger-  
man scholasticism in which the author  
was trained has led him to make but  
few references in the text to the liter-  
ature of the subject.

While the literature was collected it  
was used only for verification of fact  
and perspective and the book therefore  
is somewhat unusual and has a strong  
personal note in its make-up that is in-  
teresting. Sufficiently numerous foot-  
notes from time to time supply all the  
additional information that may be re-  
quired.

The book is very profusely and in  
the main very well illustrated with  
1201 illustrations, 830 of which are

from drawings by the author; it there-  
fore seems a pity to introduce some  
grotesquely hideous illustrations, as  
figures 157 and 228, pages one hundred  
and sixty-five and two hundred and  
eight. There has also been an at-  
tempt to make the illustrations much  
more an integral part of the text, by  
refraining from an index of illustra-  
tions, than is usual in medical book  
making.

We agree with the author that we do  
not know whether this has been ac-  
complished or not; we think in a meas-  
ure that it has.

The key note of the book is the well  
known fact that dislocations do not  
present themselves to the surgeon as  
such, but rather as injuries to or near  
the joints—a doubtful field of surgery  
which the author thinks is strewn with  
wrecks, the product of mistakes and of  
unavoidable difficulties, and he also

thinks that the dangerous field has been inadequately studied except for the work of Gurlt, Hamilton and Stimson. It is undoubtedly true that the clinical records alone of preceding generations are not of any value to us today; their opinions do not concern us; of course wisdom is not confined to our generation, but we have a far better opportunity to learn our art correctly. This book, then, is an attempt to make a fresh but not ultra radical start along the line of the developed knowledge of today. With his desire that we may train ourselves to a greater degree of personal skill in diagnosis and in both non-operative and operative treatment we are all in accord and with greater knowledge we will recognize that each fracture is a mechanical problem of itself and we heartily agree with Cotton that the ancient custom of treating a fracture with a given form of reduction and putting it up in a routine way in this or that splint is no longer doing our full duty in the light of advanced knowledge.

So, also, do we agree that it is not necessary to have our results always automatically perfect, functional results are as a rule those to be striven for. We must remember that human machinery is not like our automobiles, we cannot replace broken or worn parts.

Again it is true that the general practitioner should be able, will be able, to treat most fractures. He must recognize and recognize it early, that doubtful results after reduction of luxations or luxation—fractures must be tested by the X-ray, and that poor results must be bettered either by operative or non-operative measures, but that it should not be used in place of skillful manipulations or diagnosis.

How true it is that an X-ray plate two weeks after the injury would ob-

viate most instances of dissatisfaction or of legal process after fracture or luxation.

No book can make any man a fracture expert, but this book will aid every medical man in the diagnosis and treatment of these puzzling cases. As one proceeds with the examination of the book he is impressed with its worth, its honesty of purpose and its straightforward plain statements of personal experience and personal conclusions and feels that it is worthy of endorsement.

WILLIAM A. EDWARDS.

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EDUCATION IN SEXUAL PHYSIOLOGY AND HYGIENE. By Philip Zenner, M.D. Published by Robert Clark Co., Cincinnati. 1910. Price \$1.

This little book by Dr. Philip Zenner should have a wide circulation among parents, teachers and older children. It deals in a chaste and simple way with the sex life, and its importance in the formation of character.

The first chapters deal with the reproductive functions of plants and the lower forms of animal life. By a natural and easy transition, the author leads up to the reproductive function in man, and its bearing upon the welfare of the race.

The later chapters upon social diseases and their prevention are thoroughly scientific, and yet so simple that a child can readily grasp the meaning.

There is nothing in the book that could harm the most sensitive mind, and it is admirably adapted to the allaying of morbid fears on sexual subjects.

The public, through medical inspection or schools, and organized efforts on the part of physicians and laymen, is awakening to the importance of more knowledge upon these subjects. The sexual life lies at the very foundation of our civilization, and if we are to stem the tide of social diseases,

it must be through preventive measures directed towards the young.

The last chapters of Dr. Zenner's book are devoted to methods of instruction to the young. The book will be a valuable aid to parents and teachers in showing them the easy and natural way to impart sexual knowledge to children.

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THE PHYSICIAN'S VISITING LIST (Lindsay and Blakiston's for 1911. Sixtieth year of its publication. The dose-table herein has been revised in accordance with the new U. S. Pharmacopoeia, Philadelphia: P. Blakiston's Son and Co., (Successors to Lindsay and Blakiston) 1012 Walnut St. For sale by booksellers and druggists. Price, \$1.25.

The publishers take great pride in the stability of this publication that now enters upon the sixtieth year of its existence.

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THE DISEASES OF CHINA INCLUDING FORMOSA AND KOREA. By W. Hamilton Jefferys, A.M., M.D., University of Pennsylvania, Medical Missionary in China; Professor of Surgery, St. John's University; Surgeon to St. Luke's Hospital, Shanghai; Editor, China Medical Journal, and By James L. Maxwell, M.D., London, Medical Missionary in Formosa; Chairman, China Medical Missionary Association Research Committee. With 5 Colored Plates, 11 Noso-Geographical Maps, and 352 Illustrations in the Text. Octavo, xvi and 720 pages. Handsome Cloth, \$6.00. P. Blakiston's Son & Co., Publishers, 1012 Walnut Street, Philadelphia.

While nearly twenty years ago we reviewed in the Southern California Practitioner a work by Dr. Robert Coltman Jr. of Philadelphia on "The Chinese—Medically, Politically and Socially," yet the volume before us is the first scientific work ever produced dealing exclusively with the nosology of the Empire of China. The subject is treated both from the standpoint of the needs of the practitioner in China and also from that of the general science of pathology and parasitology. It treats of diseases found in China in the Chinese, their forms, occurrence, distribution and special manifestations. There are twenty-four chapters in all. "Nankou" is internal medicine and "wai-

kou" is surgery. "The deadly acupuncture needle is the favorite Chinese instrument of professional torture. It is a long, thin steel needle, usually wrapped at the end with copper wire; which may, or may not, be heated, and is thrust into any part including the abdominal cavity, the eye ball, and hernial sacs, though it is more frequently confined to the extremities and used for tumors and abscesses. The eye-balls are very often spoiled by puncture." In speaking of the diseases that are prevalent among foreigners he says that "liver abscess is tremendously prevalent among foreign men, especially those who drink heavily, and is decidedly a rarity among Chinese." Acute articular rheumatism, locomotor ataxia, varicocele and appendicitis are also rare among the Chinese. Kala-azar, leprosy elephantiasis, beri beri and intestinal parasites while prevalent among the Chinese almost never attack the foreigner. China, climatically, is divided into three parts; North China, Central China, South China. In the north from the 35th parallel upward, the climate is dry and stimulating and though warm in summer is generally sought at that season by those foreigners whom the damp, hot south has driven out. The winters are severely cold, and north of Newchwang they are rigorous. This is the finest climate in China. Central China, 28-35° latitude, includes the whole Yangtze Valley. It is cold and damp in winter and warm and damp the rest of the year. South China is sub-tropical and tropical, always warm, usually hot and damp. There is no frost or proper winter season here (28° down). This section on Noseogeography is quite complete. Part II is on Infectious Diseases, Plague, Dengue, Malaria Fever, Enteric Fever, Typhus Fever, Cholera. Hygiene among the Chinese, Diseases of



the Eye and Ear, Gynecology and Obstetric Operations, Genito-Urinary Diseases and Stone, Tumors, Diseases of the Skin, Diseases of the Bones and Joints, Opium Habit and Suicide are a few of the interesting chapters. The volume is a useful addition to Medical literature and is of special value in the study of tropical diseases.

"Some Posological Hints" is a very useful booklet that is being sent out by The Fellows Company. Any physician wishing a copy should send a postal card request to the Company at 26 Christopher St., New York City.

**PRACTICAL PHYSIOLOGICAL CHEMISTRY.** A Book Designed for Use in Courses in Practical Physiological Chemistry in Schools of Medicine and of Science. By Phillip Hawk, M.S., Ph.D., Professor of Physiological Chemistry in the University of Illinois. Third Edition Revised and Enlarged. With Two Full-page Color Plates and 127 Figures of Which 12 are in Colors. \$2.50 Net. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut St. 1910.

Chapter II is on Carbohydrates; Chapter III Salivary Digestion; The amount of Saliva secreted by an adult in 24 hours between 1000 and 1500 cc. . . . The so-called tartar formation on the teeth is composed almost entirely of calcium phosphate with some calcium carbonate, mucia, epithelial cells, and organic debris derived from the food. . . . The principal enzyme of the saliva is known as Salivary Amylase. Chapter IV Proteins; Their Decomposition and Synthesis. The illustrations in this chapter are especially good. Chapter V. Proteins; Their classification and Properties. The author speaks of the ease with which fats and carbohydrates may be classified and the difficulty of classifying the proteins as the molecular structure of these complex substances is unknown. Chapter VI. Gastric Digestion; Chapter VII. Fats; Chapter VIII. Pancreatic Digestion; Chapter IX. Bile; Chapter X. Putrefaction Products; Chapter XI. Feces;

Chapter XII. Blood; Chapter XIII. Milk; XIV. Epithelial and Connective Tissues; Chapter XV. Muscular Tissues; Chapter XVI. Nervous Tissues; Chapter XVII. Tissues; Normal and Pathological are all practical and satisfactory while the Appendix gives much additional information.

**MODERN TREATMENT; THE MANAGEMENT OF DISEASE WITH MEDICINAL AND NON-MEDICINAL REMEDIES.** By Eminent American and English Authorities. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia; Physician to the Jefferson Hospital; Author of "A Text-Book of Practical Therapeutics," "A Text-Book of the Practice of Medicine," etc. In Two Very Handsome Octavo Volumes, Comprising 1800 Pages, with Numerous Engravings and Full-page Plates. Price Per Volume in Cloth, \$6 Net; Half Morocco, \$7.50 Net. Lea & Febiger, Publishers, Philadelphia and New York. 1910.

Dr. Norman Bridge, in his striking, epigrammatic manner, said at a meeting of the Los Angeles County Medical Society about two decades ago. "The time will soon come when all of our therapeutics will come from the laboratory."

The development of the vaccines during the last few years has justified Dr. Bridge's prophecy, but the first three chapters in this work show that the drugless doctors have by no means completed their work. The first section "Modern Pharmacology and its Practical Therapeutics" is by Horatio C. Wood, Jr. In speaking of remedies offering Bronchial Secretion, Dr. Wood says "If Creosote, guaicol, eucalyptol and terebene are left, the others might all be dispensed with in the treatment of bronchitis and no one be the loser."

The second chapter is on the "Untoward Effects of Drugs." In speaking of the untoward effects of drugs on old people it is stated, "Iodoform is specially apt to give trouble in old people." The author then takes up numerous drugs one by one and shows their untoward effects under certain conditions. "It is easy to understand why it is dangerous to use opium prep-

arations freely in cases of bronchorrhea. The patient is kept alive by his frequent cough, which prevents the bronchial tubes filling up with secretion. Opium dulls the bronchial reflex and depresses the respiratory center, and thus doubly hampers Nature's efforts to keep the respiratory passages free."

Californians will be particularly interested in the section on climatic Therapeutics by W. Jarvis Barlow, A. B. M. This chapter is so concise and yet comprehensive and gives such a fair estimate of the effects of the climate of Southern California that we wish we had space to transfer it all to the pages of the "Southern California Practitioner." Dr. Barlow says the resorts of southern New Jersey and California are available the whole year; in fact, the resorts of Southern California are preferable, more equable, and comfortable in summer than in winter." . . . "The southern Coast of New Jersey represented by Atlantic City and Cape May, and Southern California represented by Santa Barbara and the beaches near Los Angeles (as Long Beach, Santa Monica, Ocean Park, Redondo, Hermosa and many smaller places) Catalina Island, and, farther south, La Jolla, Coronado Beach and San Diego are both cool in summer and mild in winter. California of course, having the greater advantage climatically."

"The Southern California coast has the advantage of being the driest marine climate, and during the summer months has no storms or rains and always cool nights. Health seekers agree that the summer climate of these places is absolutely perfect, even the hot part of the few warm days is not perceptible on account of the dryness of the atmosphere. This dryness is due to the nearness of the desert, distance from storm centers and that the rain appears only in the winter months from November to

March, so that the summer climate is drier than the winter, and makes the California coast climate, for at least one-half of the year, an exception to the usual type of ocean climate. I am equally enthusiastic over its equability, and believe no other coast approaches it for an all-year comfort and peace."

The section on "General Exercise," by Story, is well illustrated and makes a valuable treatise on this subject. Dr. Guy Hinsdale on "Mineral Springs" is very interesting. He says: "It is pretty well determined that water is not absorbed by the mucous membrane of the stomach, but by the intestine. . . . A healthy man of average size should take of water independent of that contained in the food, about three to four pints daily. . . . Hot water drinking is not so much in vogue as it was ten or fifteen years ago, and this probably due to the tendency to undue relaxation of the gastro-intestinal tract when continued for long periods. . . . Distilled water made palatable by the addition of oxygen, with or without carboic acid gas. Much discussion has arisen as to the propriety of using a water without any solid constituents, the claim having been made that its use tends to abstract valuable salts from the system. These objections are more theoretical than practical, the rather extensive use of distilled water on shipboard and elsewhere not having been attended by any bad results."

Hydrotherapy by Baruch and Shradly; Electro-Therapeutics, Including High-Frequency Currents by Price; and the Treatment of Diseases by the X-Rays and Radio-Active instances by Pfahler are all practical and well illustrated chapters. We doubt if any person could in the same space, equal Friedenwald and Rurali in the section on Nutrition and Food. John Walter Kerr writes authoritatively on Hygienic Measures; The Management of

Epidemics and Disinfection; Dercuni "On the Rest Cure," is another chapter that deserves careful reading and consideration.

As we look over this list; Climatic Treatment, Mineral Springs, Hydrotherapy, Electro Therapeutics, General Exercise, Nutrition and Food, The Rest Cure, and Hygienic Measures we are glad they have been given this prominence in this important treatise. The young practitioner who will devotedly and practically take up with thoroughness these branches of Therapeutics will be a blessing to his fellow man.

Park gives the section on Serum Therapy, Potter and Avery on Opsonius and Vaccine Therapy, Beebe on Glandular Therapy, and F. M. Pottenger on Tuberculin as a Therapeutic and Diagnostic Agent.

Pottenger in his moderate yet firm advocacy of the use of tuberculin in the treatment of tuberculosis says: "There are those who will disagree with me, claiming that tuberculin is still on trial. For such there is convincing proof in the literature of the last ten years if they will accept it. . . . It should be understood that tuberculin is a cure for tuberculosis, and not for consumption. . . . It

is not the province of tuberculin to cure consumption; it is the province and duty of the medical profession to see that tuberculosis does not become consumption" He goes carefully into the technique of the treatment with tuberculin and says in conclusion: "Any man who has intelligence and training necessary to practise medicine should be able to administer tuberculin."

Part III is devoted to the Treatment of the Infectious Diseases. Riesman on Typhoid Fever; Hubbard on Scarlatina, Measels, Rubella, Varicella and Variola; Dunn on Cerebro Spinal Meningitis; Meara on Pneumonia and Pleurisy; Landis on Tuberculosis; Rogers on Diphtheria; Clayton on Acute Articular Rheumatism; Rogers on Cholera; Jackson on Plague; Wilson on Influenza and Agramonte on Yellow Fever are comprised in this part.

We would like to give our readers some idea of each of these chapters but have only space to heartily commend them all. The second volume of this valuable work will be looked forward to with anticipation of pleasure and profit.

## THERAPEUTICAL HINTS

With each succeeding visitation of Influenza, we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and heart sustainers, rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging action of skin and kidneys with possibly minute doses of blue pill or calomel. We have found much benefit from the use of Antikamnia and Codeine Tablets in the

stage of pyrexia and muscular painfulness, and as a sedative to the respiratory centres. In the treatment of influenza or la grippe and its sequelae, its value is highly esteemed. In diseases of the respiratory organs following an attack of la grippe, pain and cough are the symptoms which especially call for something to relieve. This combination meets these symptoms, and in addition, controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva.



In a paper read before the Medical Society of the Borough of the Bronx, New York City, reprinted in the Medical Review of Reviews, September 1910, Dr. Samuel Goodwin Gant, Professor of Diseases of the Rectum and Anus in the New York Postgraduate Medical School and Hospital, states that his experience with Beta-Eucaine which extends over ten years, has been universally satisfactory. The author pleads for a more frequent use of local anesthesia, especially of infiltration anesthesia, in cases where now general narcosis is being unwarrantedly used.

Since the discovery by Cushing and Crowe (Johns Hopkins Medical Bulletin, April 1908 and April 1909) that Urotropin is excreted in the cerebrospinal fluid and there manifests antiseptic properties, the then suggested use of this drug as a prophylactic routine measure in meningeal infections has found more and more general advocacy.

The increased frequency with which epidemics of acute anterior poliomyelitis have made their appearance in various parts of the country has brought forward numerous papers dealing with the prophylaxis and treatment of this disease, in which the use of Urotropin in the early stages is strongly recommended.

The indications of Hegenón are the same as those of other silver proteids. So far it has only been systematically tested in gonorrhea, in which one-quarter per cent solutions have yielded excellent results, recourse to higher concentrations appearing unnecessary. In this concentration the solutions are almost colorless and cause practically no staining.

Two parts of Dioviurnia to one part of Neurosine is par excellent in

Hysteria, Eclampsia, Melancholia, Female Neurosis, Uterine Congestion, Ovarian Neuralgias, An Efficient Diuriticability, Lumbago, Migraine, Menopause, Menstrual Colic, Anemic Nervousness, Nervous Prostration, Reflex Cough, Delayed Catamenia, Non-Descriptive Cases, Subacute Rheumatism, Relieves all False Pains, Rheumatic, Sciatic Pains, Neurasthenia from Uterine Diseases.

While lecturing recently, a Chicago physician—and member of the School Board—declared the prevailing method of dry sweeping a prolific source of disease, due to the spreading of germ laden dust.

Dust, dirt and germs are best removed from floors by first sweeping with a cloth-covered broom, moistened with water containing just a little Platt's Chlorides.

Battle & Co. of St. Louis have just issued No. 14 of their series of Charts on Dislocations. This series forms a most valuable and interesting addition to any physician's library. They will be sent free of charge on application, and back numbers will also be supplied. If you have missed any of these numbers write Battle Co. for them.

As has been previously stated, the sleep produced by Bromidia is of a true physiological character. It is dreamless, and the patient awakes refreshed and vigorous. In proper dosage, Bromidia is perfectly safe and does not depress the heart. A teaspoonful should be given in water and, if necessary, repeated hourly until four doses have been administered. It is needless to state that, in order that maximum effect may be obtained from the initial dose, the patient should be placed under conditions favorable to the induction of sleep.

Professionally *tested*—Approved professionally.



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Physicians have been able to prescribe to advantage

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Sample with literature sent to physicians on request

Parke, Davis & Co. set out to produce by the soft-mass process a pill that should be a credit to their house and to manufacturing pharmacy. The task at first seemed simple enough. Here, as elsewhere, theory and practice were at variance. As a matter of fact, a good deal of experimentation had to be done. Time was consumed. Money was expended. In the end, of course, ingenuity triumphed.

Parke, Davis & Co. are putting out close to thirty formulas by the soft-

mass process—all of them listed, we believe, in advertisements now appearing quite generally in the medical press. Practitioners under whose eyes these announcements do not happen to fall may profitably write the company, at its home offices in Detroit, for a copy of a recently issued folder on "Soft-Mass Pills," which contains titles and complete formulas of all the pills now manufactured by Parke, Davis & Co. under the process referred to, together with some other important information.

## CALIFORNIA HOSPITAL ALUMNAE NOTES

The yearly meeting of the California Hospital Nurses' Alumnae Association was held in the Directory Rooms, Tuesday, Dec. 27th. The principal business of the day was the

election of officers. The following were elected: Miss Kent, President; Miss Westover, 1st Vice-President; Mrs. Spaulding, 2nd Vice-President; Miss Cochran, Treasurer and Miss

Gage, Secretary. Miss Dougherty, who has been taking a post-graduate course at Flower Hospital, N. Y., has just returned and gave a most interesting talk upon her work there. She was one of the delegates to the National Convention last May. While in New York she took the State examinations and now proudly wears R. N. after her name. At the close of the meeting Mrs. Middleton served refreshments and everybody enjoyed a social time.

Mrs. Durbin spent a week preceding the holidays on a large cattle ranch near Tulare.

Miss Barbor has returned from Mexico, where she has been nursing for the past six months. We are glad to see her sunny face among us once more.

Miss Hawley, Class '05, who is Superintendent of a Missionary Hospital in India, writes that she has adopted a little girl.

Miss Claire Hardison spent part of the holiday season visiting in Calexico.

Miss Lacomby, who has been head surgical nurse in the California Hos-

pital for the past year or so, has resigned her position to do private work. Miss Richards, who has been head nurse in the main building, succeeds Miss Lacomby.

Miss Brinkerhoff has dropped nursing temporarily while she is studying massage.

Miss Fenn, who has been visiting in the East for two months, is expecting to return to this city some time this month.

Miss Maud Hammette, who has been doing institutional work in Morenci, Arizona, is again in this city, where she will take up private work.

The California Hospital had an Emergency Hospital at the Aviation Meet near Los Angeles, December 24, 1910, to January 2, 1911, inclusive. Miss Anna A. Williamson, Superintendent of Nurses, was in charge and had a corps of three nurses on duty each day. There were numerous minor injuries to treat and then on Saturday the 31st the body of Hoxsey brilliant, daring Hoxsey—was brought in. His watch was still running, but a small watch on his wrist had stopped at 2:18 p.m.

## Catgut sterilized in cumol by the Johns Hopkins Hospital Process at 280° Far. for one hour

This ligature is sterile, elastic and exceptionally strong

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Mr. H. H. Shutts,  
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Dr. E. L. Leonard.  
Dr. L. B. Stockey.

April 8, 1910.

Dear Sir:—A bacteriological examination of your preparation of cumol catgut made in this laboratory shows all the tubes to be free from bacteria. Culture tests made from your catgut on bouillon, gelatine and blood serum show no development of germs.

Sincerely, E. L. Leonard, B.S., M.D."

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" " Chromic, 2.25 " "

" " Iodine, 2.50 " "

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# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, FEBRUARY, 1911.

No. 2

Editor,

DR. WALTER LINDLEY.

Associate Editors,

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DR. GEO. L. COLE, DR. W. JARVIS BARLOW, DR. F. M. POTTENGER  
and DR. WILLIAM A. EDWARDS.

## THE DIAGNOSIS OF DUODENAL ULCER.\*

BY E. C. MOORE, M.D., LOS ANGELES.

I am deeply impressed with the honor of having been asked to read this paper before your society tonight, and at the same time I am conscious of the difficulty of presenting this subject in a proper manner, and of my misgivings as to my ability to do so.

In speaking of ulcer this evening, I shall take the duodenal as the type, as the difference in symptomatology between gastric and duodenal ulcer is one of degree only.

Ulcers of the duodenum and stomach have a definite and clear-cut symptomatology and the closer the ulcer is to the pyloric ring, the more pathognomonic are its symptoms. In a well developed history one is not only able to make a diagnosis of ulcer, but also to diagnose the position of the ulcer with a degree of precision that is surprising.

In this paper tonight I wish to emphasize four symptoms in the diagnosis of ulcer that seems to be most prominent:

First—Periodicity of the attacks.

Second—The number of years during which the patient has had these attacks of stomach trouble and their intermissions or remissions before surgical relief is sought.

Third—The character of the pain in ulcer and its great prominence in the diagnosis, and

Fourth—The ease with which all the symptoms during an attack can be controlled, as well as the pain, and by the same measures, namely, food, alkalies, vomiting and stomach washing.

The periodicity of the attacks is so constant that when a patient tells you that he has had attacks of stomach trouble for years, lasting various lengths of time and with periods of normal health between, you cannot but have in mind that you are dealing with a gastric or duodenal ulcer. The onset of the symptoms are without discoverable cause. They may come suddenly and last for days, weeks or months. Each day will be a repetition of the former—each meal a repetition

\*Read before the Southern California Medical Society, Los Angeles, Dec. 8th, 1910.

of the former meal—first food case, and then followed at a shorter or a longer length of time by the usual syndrome of symptoms—pain, gnawing or burning in character, and discomfort, gas, sour eructations and vomiting of sour mouthfuls of food and water and all of these symptoms at their height about two or four hours after a meal.

The attacks will be of a variable time as to duration, and each one is followed by a period which may be of days, weeks, months and even years' duration, during which the patient will be free from symptoms. I have in mind one patient in whose history he had a period of complete freedom from symptoms of over ten years' duration. This was a so-called medical cure. The attacks occur irregularly for years and last for various lengths of time, increasing in severity slowly, the periods of intermission becoming shorter until finally the patient fails to experience the complete relief during the intermission of earlier years. Early in the disease, and often for years, the interval between the attacks is one of perfect health, and following an attack the symptoms quickly disappear and the patient rapidly regains his normal condition. The appetite in the attacks is usually good until complications arise to change the character of the symptoms and it is here that a careful and well developed early history is of value to arrive at a correct diagnosis.

Dr. Christopher Graham goes so far as to say that "These periods of complaint with periods of intermission, each covering days or months, are so characteristic that, excluding other details, this one feature is often sufficient to warrant a probable diagnosis.

Of equal prominence as the periodicity of ulcer, is the chronicity of the

disease. The patient will relate with exactness the number of years he has had his trouble, mild in the beginning with no disturbance to his general health and the attacks of short duration. But he will relate that as the length of time has been increasing, his attacks have been of the same character, only of a severer grade and of longer duration. It is not unfrequent that you may get a history extending over a period of twenty-five to thirty years and some of even longer duration. The average length of time in the histories of patients taken in the Rochester Clinic is between twelve to thirteen years.

Periodicity and chronicity are not of themselves peculiar to ulcer. They are also noted in appendical colics. Gall stone attacks come without any apparent cause, disappear with equal rapidity. They may also increase in severity with each attack and both have one feature in common with ulcer, namely, that each attack with its intermission or remission is but a part of a cycle, and the remission or so-called cure is but a part of the round of trouble. It is the character of the attack, and the peculiar way in which the symptoms manifest themselves that differentiate the three diseases.

Pain in ulcer is perhaps the most characteristic symptom. It is not the kind of pain nor the location of the pain that characterizes ulcer, but it is the relation of the pain to food. The pain is usually epigastric—may or may not radiate through into the back. It has been variously described as burning, gnawing, a distress or sometimes sharp and lancinating. The severity of the pain depends a good deal on the location and depth of the ulceration. It usually makes itself present in from two to five hours after a meal, increases in severity until vom-

iting takes place, gastric lavage practiced or food has been eaten to dilute the acid. Food eases the pain in about 95 per cent. of the cases, and the heartier the meal the longer the period of relief. This is especially true of duodenal ulcer. However, as the length of time of complaint increases, food ease becomes less a prominent symptom and after the patient has been long a surgical case and complications have arisen (perforation, adhesion and obstruction) the only method that eases the pain is irrigation or lavage to remove the acid contents of the stomach.

Gas is usually present and varies from a mild pressure to grade of great severity, also present are sour eructations of food and water—water brash—sour taste in the mouth, vomiting of mouthfuls of sour acid, bitter, burning fluid often mixed with food. This latter often taking place at night and is very characteristic of ulcer. Some or all of these symptoms are to be associated with ulcer in an attack and when considered in relation to the time of food, have great diagnostic value.

All of these symptoms may be found in gall bladder and appendical attacks as well as in ulcer. All have pain which may be entirely gastric and of any grade of severity. Gas, sour eructations, vomiting and acidity of the stomach are also complained of in all three conditions. The pain, gas, sour eructations and vomiting are not of themselves characteristic of ulcer. It is not the location of the pain, or the severity of the pain, nor the kind of pain or these associated symptoms that point to ulcer, but it is, first, the time of the pain or the other symptoms; second, the regularity of the pain and the other symptoms; third, the means by which the pain

and the other symptoms are relieved that differentiates ulcer from the other lesions in the upper abdomen.

During an attack in gastric ulcer, the duration of which may be weeks, the patient complains of pain of more or less severity, sour gas, sour eructations, vomiting and sour stomach. He will say it follows a meal. Usually the symptoms appear in two to five hours after a meal. They will increase in severity until something is done to relieve the stomach of the acid contents or more food eaten. When pain is at its height, so also are the other symptoms of gas eructations and vomiting, and all these symptoms relieved by the same measures that relieve the pain (more food, lavage or alkalis). This train of symptoms repeats itself daily during the attacks, comes at the same time after each meal and always relieved by the same measures.

Pain is the most constant factor to be found in ulcer, but ulcer can be present without pain. If gas, sour eructations, vomiting and sour stomach appear at a definite length of time after meals and relieved by the same measures that relieve pain, then ulcer should be strongly suspected.

This almost pathognomonic symptomatology may be approached by hypersecretion and hyperacidity, but that there is no pathological condition that closely follows this train of symptoms except ulcer of the pyloric end of the stomach and duodenum. These symptoms, however, lose force if the position of the ulcer is cardiac or when the ulcer is on the greater curve, as then the symptoms are almost immediate.

In the end, conditions of ulcer, as hour-glass contractions, perforations and adhesions, stenosis and extensive saddle ulcers, the symptoms are more or less persistent, and the almost pathognomonic cycle is lost. It is here



that the well developed and carefully taken early history is of value in making a diagnosis.

There is pain, oftentimes severe, more or less continuous, and does not subside on the intake of food, but is increased by it. Vomiting is irregular, but less frequent; it is very acid and shows food remnants of former meals. Gas is present more or less all the time and the patient now has the greatest relief when his stomach is empty rather than after food.

The test meal in the diagnosis of ulcer does not have as great a value as was formerly thought. There may be a normal amount of acid, subnormal or abnormal, but the higher the amount of acid the more suggestive it is of a neurosis.

Free acids bear about the same relation as does the total acidity. The older the patient the lower are the acids. I have seen cases come to operation with no free acid in the test meal and the general test meal findings of gastric carcinoma, and yet nothing found at operation except ulcer. The test meal finding from pyloric spasm as the result of appendicitis and gall stones may also be the same as that of ulcer.

As an illustration:

In a series of 250 cases of ulcer, free acid present in 237, absent in 13.

Total acidity normal 40-60, 106 cases; above 60-80, 103 cases; below, 28.

Free acid, normal 20-40, 102; below, 23; above, 112.

Blood present in 49.

Food remnants in 73.

In 150 cases carcinoma stomach.

Free acid present in 70 cases; free acid present without blood lactic acid or food, 46; and of these 46 cases, 37 had no palp. tumor.

In 100 cases pyloric spasm due to appendix or gall bladder disease: Free

acid present in 84, absent in 16; 3 cases gave test meal picture of carcinoma.

In 100 cases of functional neurosis: Free acid present in 95, absent in 5 cases; acids above normal in 61, normal 34, absent 5.

Therefore, from these findings one cannot place too much dependence on the test meal. It is only when taken in conjunction with the clinical findings that they are of value.

In the differential diagnosis, I shall confine myself to three conditions—cancer, gall bladder and chronic appendicitis.

Cancer:

Cases suffering from cancer fall naturally into three groups from their histories:

1st—Those in which the disease appears suddenly and without previous ill health.

2nd—Those who give an early history of stomach trouble with a period following covering years of perfect health, to suddenly develop symptoms of a grave stomach disorder.

3rd—Those who give a definite history of ulcer extending over years.

In the first two classes are the patients in whom tumor may be found with great involvement of glands, and those who complain only of weakness but consult their physicians more because of their worry over a tumor in the abdomen.

In cancer, pyrosis may increase in amount, usually loses its acidity—regurgitation is increased in amount and vomiting is more delayed, oftentimes mixed with blood and usually gives relief, but not as great as in ulcer. Gas and bloating becomes more pronounced, appetite is lessened and followed in a short time by a disgust for food. Food, instead of giving relief, increases the pain or produces it im-

mediately. Or pain may be more or less constant and dull and sickening in character. Emaciation and pallor become marked and the patient has a facial expression of approaching evil.

The attacks of Ch. App. that causes difficulty in diagnosis are those in which the attacks are prolonged and none of the symptoms being referable to the appendix, there being no fever, no pain over the app., no tenderness and no tumor.

There is no doubt but that these symptoms are all due to pyloric spasm and are reflex in origin. Pain, gas, sour eructations increased, secretion and vomiting are all associated with pyloric spasm. It makes no difference what the cause of the spasm may be, the symptoms are the same as those following obstruction. Therefore the symptoms may simulate chronic complicated ulcer, although not quite as persistent. Food increases the pain and but rarely gives relief. In this type of case, unless an early history of appendicular trouble can be elicited and no local symptoms can be found and even no history of early ulcer elicited, I think it more probable that the lesion on exploration will be found to be ulcer.

#### Gall Stone:

The majority of these cases can be easily diagnosed. The attacks are usually of short duration of several hours or less—sudden in onset—relief is sudden—and a quick return to normal health. This is characteristic of gall bladder attacks—suddenness of onset and relief, the relief coming suddenly while pain is at its height. The pain is epigastric, radiating to right and rarely left costal border over right scapular region or sometimes to the general abdomen. Pain is terrific, may be described as tearing, boring or lancinating, is accompanied with spasm

of diaphragm. It may come at any time day or night, principally after meals. It is entirely independent as to food, is not relieved by it. Gas is present to a greater or less degree, but the bloated, bursting feeling described by patients is due to the character of the pain and its radiation more than to the gas. Vomiting is present in the attacks and may give some relief, but not the complete relief as in ulcer, the vomitus consisting of bile and bitter fluid unless soon after a meal. The general nutrition is not affected until complications arise and jaundice occurs about 25 per cent. of cases.

In chronic G. B. disease, we often find it impossible to diagnose between this condition and ulcer with chronic perforation, and especially is this difficulty increased if the perforation is posterior and the pain radiates into the back. In both these conditions we have sour eructations, burning vomiting, pain, poor appetite and emaciation. These cases are usually diagnosed G. B. because of the radiating of the pain, it being the only characteristic symptom in the entire syndrome.

There is another class of cases in which the ulcer is duodenal or pyloric. The only symptoms complained of is sharp, severe pain, epigastric and occasionally referred to the back. The patient quickly recovers from the pain, which is due to chronic perforation or spasm. These attacks are typical of G. B., and it is impossible to make a different diagnosis. The early history may offer a solution as to the nature of the condition in the first type of cases. In the latter group, explorations only can give the proper diagnosis.

#### To sum up:

Periodicity is characteristic of ulcer, the history extending over years

with distinct intervals of months or weeks in which the patient is in perfect health. This to apply until complications arise.

**Chronicity:** The history extends over years. Pain comes at a definite time after each meal. Each meal a repetition of the previous meal and each day a repetition of the former.

At the same time pain is at its height so are the other symptoms of gas, sour eructations, water brash and vomiting.

Pain and all symptoms are relieved by food—alkalies and gastric lavage. These symptoms to recur at a definite time after food to be again relieved by same means.

H. W. Hellman Bldg.

## THE SURGICAL TREATMENT OF DUODENAL ULCER.\*

BY WILLIAM A. EDWARDS, M.D., LOS ANGELES.

By way of a preface, men of my age will remember the days when the risks of an abdominal operation were great; about two-thirds of our patients died after an abdominal section, no matter what the indications were for its performance. One of our best surgical writers has said: "The record of a year's work was not then a chapter of surgical achievements; it was a martyrology." This has all changed, and the upper abdomen is rapidly passing within the domain of surgery. Lucky the individual who falls into the hands of the medical man who knows that persistent hyperchlorhydria spells gastric or duodenal ulcer and spells nothing else—hyperchlorhydria is the medical term for the surgical condition known as ulcer. It is surgery that has permitted the pathologist to study the pathology of the living and not that of the dead house; it is our surgical art that has proven to the world that the so-called dyspepsias that persist more than ninety days, in the hands of a competent medical man, are cases of organic lesions in the upper abdomen that surgery can relieve or cure, and cure permanently. Our function is to heal the living and to heal them before they present terminal lesions that are non-operative and fatal.

The opinions that are based on post-mortem studies and so confidently expressed are of little value—of no value at all in cases of gastric or duodenal ulcer. It is the work of the surgeon that has shown that chronic ulcer of the duodenum and stomach is very common and that a very large number of protracted and intractable cases of dyspepsia are due to it and that it is a fallacy to attach the symptoms to altered secretions, either hypo or hyper.

If you will consult your medical text of today, or yesterday, you will find that duodenal ulcer is considered rather infrequent and one withal difficult of recognition. Ewald's book of 1907—three years ago—is in this class.

Furthermore, the literature will tell you that gastric ulcer is more frequent than duodenal ulcer. This is not a fact; a surgeon will operate more often for duodenal ulcer than for gastric ulcer.

Many ulcers supposed to be in the pylorus or stomach we now know are in the duodenum. The venous ring that marks the pylorus has become recognized as the landmark that distinguishes their site.

It is the surgeons who have demonstrated the relationship between chronic ulcer and cancer, a relationship that Moynihan thinks is casual in

\*Read before the Southern California Medical Society, December 8, 1910.



66 per cent. and Mayo's in 67 per cent.

There is no treatment but the surgical one for chronic ulcer of the stomach and duodenum, because if the ulcer should heal under medical treatment its cicatrix will cause deficient motility, a serious condition of itself. It is here particularly that gastro-enterostomy has its field and no operation in all surgery will be so satisfactory to both patient and surgeon. Relief from present suffering is assured and malignant disease does not occur.

The one man who has done the most for surgery of the upper abdomen—Monyihan, diagnostician—has this to say in regard to these operations, and so true is it that it is well to memorize this sentence: "Unless a definite ulcer can be seen during an operation, there is, in my judgment, no indication for the performance of gastro-enterostomy. If this operation is done for the relief of symptoms dependent upon no demonstrable organic cause, the patient will have no relief, and the operation will be thereby discredited."

In fact operations done when the indications do not exist will probably result in a closed gastro-enterostomy anastomosis and the food current will return to its normal course through the pylorus. In other words, a gastro-enterostomy opening will not functionate in the presence of a patulous functioning pyloric opening.

Today the most skilled and careful diagnostician cannot make an early diagnosis of cancer of the stomach, but he can make an early and accurate diagnosis of ulcer, and by operating he can save approximately two-thirds of the ulcer cases from becoming cancer. Personally I have little hope that an individual who has cancer will escape his fate, no matter how skillful his surgeon may be. The end may be deferred by skillful surgery,

but ultimately the death from cancer will come, it may be five years, nine years, eleven years and thirteen years in my experience, but it comes sooner or later.

This brings up the question, when should we operate on duodenal ulcers? The answer is simplicity itself—operate when the diagnosis can be made. It is doubtful if the diagnosis is ever made in the first or perhaps the second attack unless they have the unusual symptoms of hemorrhage. It is the recurrence of attacks that make the diagnosis possible. But I must hasten to establish peace with my medical confreres. It is during the first attacks before the diagnosis is made that medical treatment has its place, but listen to this from Moynihan: "I believe it to be true to say that the significance of the symptoms in these attacks have never yet been fully recognized by the physicians. It has not been realized that these symptoms are due to structural lesions and consequently after a diagnosis of acid gastritis or neurosis has been made the treatment has been perfunctory and brief." This, then, is the plea that we make of all medical men—early diagnosis, careful, judicious and painstaking treatment and later the association of a surgeon when the attacks recur.

Again the master says: "I do not desire to say that at the very commencement of this disease medical treatment is futile. Of the exact conditions present in the duodenum in the earlier attacks we possess no information. It may be that a condition of congestion, or of superficial mucous ulceration visible only from the interior is present. If so, surgical treatment is not to be considered. But a better opinion upon the most suitable method of treatment in such cases

may be expressed when we possess some more accurate information of the pathological conditions which are present at this stage of the disorder."

It is perhaps true that duodenal ulcer is more apt to be latent than gastric ulcer, but it is hard to agree with the statement that perforation is usually the first symptom calling for medical advice.

Perry and Shaw's 151 cases of duodenal ulcer shows that in 91 cases the first symptom was hemorrhage or perforation from which the patient died; others have made the same statements, but this is certainly not my experience or the experience of many others. We all agree, however, that perforation is much more frequent in duodenal ulcer than in gastric ulcer. The relative proportion of perforation in the two conditions is 25 per cent. in duodenal and 15 per cent. in gastric ulcer. The natural conclusion, therefore, is that there can be no question that duodenal ulcer is a much more dangerous disease than gastric ulcer and the other natural conclusion is that surgery offers a safe cure for duodenal ulcer just as it does for gastric ulcer.

The surgical procedure will depend first, upon the skill and experience of the surgeon, and secondly, upon the conditions seen at the time of operation. Excision of the ulcer is that to be recommended, if it is small. If, however, the ulcer is too large, not on the anterior surface, occupying too much of the duodenum's circumference, or multiple ulcerations exist, gastro-enterostomy is to be advised. This, for the present at least, will be the operation most often performed, but it is well to remember that there must be obstruction either at the pylorus or the upper part of the duodenum

for this operation to prove an immediate or a lasting success.

It is now definitely accepted that a gastro-enterostomy is only allowable when obstruction of the passage of food exists through the normal outlet and if otherwise, as has been said, the last state of the patient is the same as the first.

In many instances the infolding of the ulcer will produce the same terminal results as excision; hence the judgment of the operator must decide which is the best procedure. As a broad rule, ulcers should not be excised if there is danger of unduly narrowing the duodenum at once or in after years. The Finney operation, a gastro-pylo-duodenostomy, remains the ideal operation. It is, however, more difficult of performance and has a more limited field; furthermore, most duodenal ulcers come to us only after they have existed a long time, when conditions are so altered that neither a Finney nor an excision is possible, and we have left only gastroenterostomy, which still has some drawbacks, due to altered anatomical relations of the stomach and intestines. The two procedures suggested by Moynihan, 1st, resection of the duodenum with or without the pyloric portion of the stomach, and 2nd, resection and end to side anastomosis, the pylorus being left intact, are untried in my hands and I am unable to either commend or condemn them.

The surgical treatment of the complications of duodenal ulcer practically resolves itself into the treatment of acute or chronic perforation and their sequelae.

With the perforation of acute ulcers, that is the ulcers following burns or those seen in typhoid fever, we will have little to do in this paper, but the acute perforation that occurs in the

chronic ulcer is of great clinical importance.

While it is often said that these ulcers perforate without any warning and the individual is overwhelmed with the catastrophe in a few moments, careful study of these cases will show that such is not probably a fact, but more usually the warnings have occurred but have been disregarded by both physician and patient.

It is not my province to discuss the diagnosis of these calamities, but without diagnosis we cannot select the surgical treatment. The two conditions that have confused me the most in the differential diagnosis, is that first, between perforation of an ulcer and appendicitis; and second, that of perforation of an ulcer and acute thoracic disease. A moment's reflection will explain this difficulty. In the case of appendicitis Morrison has shown that the aperture in the duodenum allows its contents to escape and find its way to the upper surface of the transverse mesocolon—the direction of least resistance—in a sulcus between the transverse colon and the greater curvature of the stomach; from there it readily finds its way further downward to the hepatic flexure, to the outer side of the ascending colon and thence still downward to the iliac fossa and the pelvis, and the mimicry of appendicitis is explained. If the person is erect when the perforation occurs the mimic will arise sooner and be more complete.

In acute thoracic disease, pneumonia and pleurisy, or both combined, the mimic is often most puzzling. Such a case recently occurred in my experience with Drs. Sundae and Magee in the German Hospital. We went prepared to open the abdomen, but fortunately the diagnosis of pneumo-

nia was made before surgery was resorted to. Clinically the early symptoms clearly indicated to all of us the necessity of exploring the upper abdomen. Never will any of us who saw this case forget that supra-diaphragmatic disease may explain all the symptoms of an apparent upper abdominal disorder and in fact that of a right iliac disorder—appendicitis. When the diagnosis of perforation has been made, sound surgical judgment, deftness and quickness in operating are the three factors that make for success. As in many abdominal surgical conditions, morphine will be of great value if given one or more hours before operation, its earlier exhibition is often disastrous, both to diagnosis and treatment. It enables one to clean the abdomen while the anaesthetic is being administered, thus saving valuable time. The right rectus incision is the best. After the fluid and gas have escaped the ulcer can usually readily be found by the thick lymph that fixes it to a contiguous structure, the liver, the abdominal wall or the abdomen. Nature is usually kind to the stricken subject in that duodenal ulcers usually perforate the anterior wall of the duodenum close to the pylorus. Gibbon<sup>(1)</sup> last November reported seven perforated duodenal ulcers; they all occurred in the anterior wall of the first portion of the duodenum. It may be brought into the wound and closed by continuous stitches in a vertical manner—excision of the ulcer is not always necessary and it may be time consuming. If the duodenum is unduly narrowed, gastro-enterostomy must be performed; this, however, is not desirable in these acutely perforated cases and is only to be done in the face of duodenal obstruction that is present or

(1) Perforated Gastric and Duodenal Ulcers. J. A. M. A., Nov. 6, 1909.



may develop in the future. The contiguous pouches are to be cleaned of food remnants and succus entericus, but the peritoneal fluid found at the time of perforation has reparative powers and should be allowed to remain. In other words, do not wash out too much and too vigorously in the absence of visible food contamination. Finally the stomach should be emptied, as the pyloric ring will relax in a few hours and empty the contents into the duodenum. In the cases extensively soiled by food contamination the washing must be thoroughly done with sufficiently warm fluid, one region after another is cleaned, including the Douglas Pouch, which is reached through a suprapubic incision. Unless this is done we may leave the pelvis absolutely full of a dirty fluid.

The wound in the upper abdomen may be entirely closed and drainage for twenty-four to thirty-six hours, not longer, maintained through the wound in the lower linea alba. In cases less soiled a small drain may be used in the upper abdomen, only, for twenty-four hours.

The patient is placed in bed in a sitting posture, as soon as the anaesthesia passes off. While waiting for this the head of the bed is greatly elevated and the Murphy rectal infusion is started, to be continued for several hours—not continuously for a day or more, as I have recently seen done in a case of gastrectomy.

My habit in all abdominal operations is to secure early bowel movement. The so-called Ochsner plan has not proven beneficial or comfortable in my experience. Here, as in other cases, we give a low enema after twenty-four hours, daily thereafter, and a laxative in seventy-two hours. Hypodermic administration of fairly large doses of ergot have proved val-

uable to me in combating flatus and colonic stasis; of course, eserine is used by many for the same purpose and is often valuable.

There is nothing that will add to the patient's comfort and well being as much as an early bowel movement. Normally peristalsis is produced in the colon by the presence of something within the bowel; peristalsis does not occur normally in an empty colon, the contraction of the unstriated muscle fibre of the intestine occurs normally only after local stimulus—that is, a certain quantity of fecal material—therefore in these post-operative cases we find the readiest way of producing peristalsis is by stretching the bowel somewhat by an enema. Believing, as we do, that the only way that the so-called colon tube can be passed into the colon, with any certainty, is by the use of a sigmoidoscope, probably assisted by the relaxation of anaesthesia, we have abandoned the use of this tube and further believe that the same object may be accomplished by an enema nozzle.

In the cases of sub-acute perforation the surgeon must decide whether the perforation is sealed off and if so, whether it is not better to leave nature's sealing alone and perform a gastroenterostomy at once; or he may expose the ulcer, infold it and perform a gastroenterostomy if indicated; probably it will not be necessary.

Periduodenal abscess, the result of chronic perforation of a duodenal ulcer, may be treated as other abdominal abscesses—evacuated and drained; some of these cases will, in addition, require infolding or excision of the old ulcer site and probably a gastroenterostomy.

In addition to the Curling ulcer—that is, the duodenal ulceration follow-

ing burns and scalds—and the uraemic ulcer, neither of which are amenable to surgical interference on account of the general systemic state of the patient, the duodenum has recently been found to be the site of tubercular ul-

ceration, which may be relieved by surgery. While at present these cases are rare, more of them will undoubtedly be recognized as our knowledge increases; here again will surgery pay its debt to pathology.

Security Building.

## OSTEO-FIBROMA OCCUPYING THE TONSILLAR FOSSA.\*

(Probably of Styloid Process)

BY A. L. KELSEY, B.S., M.D.

The report I have the honor of presenting to you is that of an Osteo-Fibroma of considerable size occupying an expanded tonsillar fossa. The report is made, not because of any peculiar circumstance accompanying the case, but as a record of one more example of a rare occurrence in this region.

Tumors of all varieties occur rather frequently in the various parts of the upper respiratory tract, and the tonsil itself is often the seat of these growths. Fibromata originating in the connective tissue of the tonsil or in its capsule are seen rather frequently. Bony or cartilaginous formations are often found in the tonsil, but after a fairly good search of the literature of the tonsillar region, I have not found a single case of a distinctive Osteo-Fibroma mentioned. I have no doubt that there may be a record of the occurrence of this tumor in the tonsil itself, but it must be rare. The occurrence of the same tumor in the tonsillar fossa and not involving the tonsil itself must occur much less frequently, because of the anatomic and pathologic conditions existing in this space.

Since, in the case under discussion, neither the tonsil nor its capsule was involved in the growth, it is rather to be presumed that its origin was in the

styloid process; as it contains the necessary elements and is sometimes found prolonged into the tonsillar sinus, where it would be subjected to irritation and inflammation transmitted from the tonsil itself.

As will be seen later, there was a history of prolonged tonsillar trouble in this case and, taking all things into consideration, I am strongly inclined to believe this to be an Osteo-Fibroma of the styloid process, although the presence of a normal styloid was not demonstrated at the time of operation or afterward, leaving the question more in doubt than it should have been.

The patient, Mrs. B., age 49, was seen first Sept. 5, '10, and the following history was elicited: She had been a goitre subject since the age of 12 and had never been strong and robust. Six years ago she was ill for a month with a swollen right tonsil which showed an ulcer, almost gangrenous in character at its center, which healed under treatment by her physician. The patient says that one year ago there was again severe trouble with this tonsil and an abscess broke. Since this, she had attacks of pain at intervals of a week or so in the right side of the neck and head.

Eight months ago, according to her physician, there began an attack of

\*Read before the Western Section of the American Laryngological, Otological, and Rhinological Society at Los Angeles, Dec., 1910.

soreness and pain in this tonsil, which was treated twice a week up to July, '10. About the middle of June he noticed for the first time some enlargement in the region of the upper end of the tonsillar fossa, and he advised a consultation. The consultation was postponed by the patient until Sept. 5th because there was not and never had been much suffering. About the middle of August the patient noticed some enlargement externally in the depression behind the jaw.

Examination: Patient rather thin and frail, though active and feeling quite as usual for her. A moderate size goitre is present without eye symptoms. Externally the space behind the angle of the jaw on right side does not show as deep a depression as on the left and feels firmer. Pharynx, naso-pharynx and mouth in good condition. Right tonsil covered almost completely by a thick plica triangularis and the portion seen is lower than usual. Above tonsillar fossa the palate is bulged out by a mass the size of a walnut. No active inflammation is indicated. On palpation the idea is conveyed that there is a hard, immovable mass present which is slightly lobulated and is as large as a walnut with the hull on. The mucosa over the mass is movable, but the tonsil cannot be further exposed by traction on the anterior pillar.

Because of the history, which indicated an apparently rapid growth, and for other reasons a tentative diagnosis of sarcoma of the tonsil was made and its removal was advised.

The patient did not appear again for some weeks, when Dr. E. W. Fleming was called in consultation and agreed with the diagnosis.

At a subsequent visit, some days later, it seemed to me that the mass was an outgrowth from the upper pole

of the tonsil and that the mass of the tonsil was not involved. The patient at this time was pronounced by Dr. Frank D. Bullard a fit subject for etherization.

Oct. 14th the operation was done with Dr. Bullard giving ether and Dr. Fleming and Dr. Eddy, the attending physician, assisting.

An attempt was made to enucleate the mass as a tonsil is enucleated, but it was soon found that there was absolutely no plane of cleavage between the tumor and the fossa. At this time I should mention that it was found the tonsil was very small and resting on the lower pole of the tumor. A distinct capsule was soon found, incised and peeled from the mass as far as space would permit. The tumor proved to be larger than thought and was so firmly wedged into its bed as to be utterly immovable by traction on a stout volsellum. The enucleation was finally accomplished after much difficulty by means of the Yankaur blunt tonsil dissector, hugging well the external surface of the mass, and guided by the finger.

The tumor extended outward and backward occupying fully the space between the spinal column and the jaw and rested on the sheath of the internal carotid artery which could be seen pulsating after its removal.

The tumor measured 4 c.m. in all diameters except the antero-posterior, which was 3 c.m. and found to contain much hard fibrous tissue with considerable bone, and was pronounced by Dr. Stanley P. Black to be an Osteo-fibroma. The bone extended through the mass in the vertical plane, the larger amount being at the top, while it was rather narrow at the bottom. The position of the bone would seem to favor the idea of the styloid process being involved.



## POST OPERATIVE HISTORY:

The patient was in excellent condition when the operation was completed and remained so for two or three days, when circulatory disturbance arose, the pulse getting irregular and going as high as 160. The attack was controlled, but recurred several times later. The wound did well and the temperature ran 99 to 100 in the afternoon for a few days and then became normal. On the tenth day the pulse again became rapid, and irregular, and the patient had very slight delirium and was dull.

At 10 p.m. of this day Dr. H. G. Brainerd was called and, as the tem-

perature was normal and the lungs showed no signs of disease, it was thought that the condition was one depending on thyroidism.

The condition was somewhat better the next day, but in the evening the temperature went to 101 and she was slightly delirious and extremely restless. A slight dullness of the base of the left lung was found. From this on the patient grew rapidly worse, the temperature going up to 107, the pulse to 160. Death resulted on the third day of this attack and on the thirteenth day after operation, evidently from a fulminating type of pneumonia.

Wright and Callender Building.

## DISEASES OF THE GALL BLADDER AND ITS DUCTS, WITH THEIR TREATMENT.

BY C. P. THOMAS, M.D., LOS ANGELES, CALIFORNIA.

The diseases of the gall-bladder, which I will endeavor to discuss, are cystic gall-bladder, cholecystitis, with and without stones, inflammatory diseases of the various ducts, with or without stones, malignancy of the same and adjacent structures, and gangrene of the gall-bladder.

The cause of non-malignant gall-bladder troubles may be safely accredited to infection, mostly extending up from the intestine; typhoid fever being, probably, the chief causative factor. Gall-stones are probably due to the same cause. Malignancy of the gall-bladder or ducts originates in a part already suffering from either infection or some result of the same.

We can thus, probably, safely accredit nearly all of the gall-bladder diseases to the one factor, infection. Since there is no known method of preventing infection of the gall-bladder, we can only direct our attention

to the cure of the troubles as soon as possible after their discovery.

It has been variously estimated that from ten to twenty per cent. of the total population who are over the age of thirty years, have gall-stones, and I have frequently operated much younger people for stones. If we add to that the people who have cystic and other varieties of gall-bladder diseases, we can readily see how many people require treatment of these organs.

With the exception of simple occlusion of the duct from gastro-duodenitis, usually in children, I think we can truthfully say, that all the diseases of these organs are either curable by surgery, or else not curable at all.

It will be remembered that the common duct is formed by the hepatic ducts, joined in its course by the cystic duct, and again about one inch from its termination by the pancreatic

duct of Wirsung, emptying into the duodenum four inches from the pylorus.

It is generally believed that stones form primarily in the gall-bladder, but they may be found there or in any of the ducts; statistics showing that in at least fifteen per cent. of cases suffering from gall stones, one or more will be found in the ducts.

The many vague symptoms in the form of dyspepsia, epigastric uneasiness, so-called gastric hyperchlorhydria, gastric insufficiency, dilation, etc., are now generally recognized and classed as being due to pyloric spasm, and disease of the gall-bladders is one of the chief causes of pyloric spasm.

Just what influence, as a causative factor, gall-bladder troubles have on gastric and duodenal ulcers, is still an unsettled question, but inasmuch as these troubles do derange the digestive function, and that derangement and perversion of the secretions of the stomach are the only known causes of ulcer, it may be safely said that they are important causative factors. It has also been observed that gall-bladder trouble is often present in the ulcer cases operated.

The first certain symptom of gall stone is colic, sudden of onset, beginning in the mid-line slightly above the navel, which passes through to the back or left side, often being felt as well under the shoulder blades. The pain is usually severe, comes on often without vomiting, and may cease as quickly as it commenced. The subject will usually tell you, however, that uneasiness and stomach trouble had existed for some time, and they usually persist after the attack until it repeats itself, which it may do at any interval.

A distinct feeling of relief may be experienced after free vomiting, prob-

ably due to the relaxation which permitted dropping back of the stones. Morphin or an anaesthetic serves the same purpose, and the patient feels quite as well as before if there is no impaction of the stone in the duct. If the stone or infection does not reach the ducts, there will be no chill or fever, since the gall-bladder has but few lymphatics; but when the ducts are involved, a chill and temperature will be present, usually very severe. This latter condition has often been mistaken for appendicitis, the removal of the appendix, of course, giving no relief.

A common error is to discredit the diagnosis of gall stones because there are none to be found in the stools after the attack. This is the rarest event, as the colic is not due to the passing of stones, but to impaction of the duct with a stone or mucus plug and damming of the tube or bladder behind it, until the dilation allows the stone to fall back or the plug to pass on, permitting the bile to flow again. This ball-valve action may go on repeating itself indefinitely.

These attacks may last a few minutes, hours, or days, when the obstruction is in the cystic duct, and it may become impacted there, causing severe infection or even gangrene. The pain then becomes localized in the gall-bladder region. After the disease has advanced this far, if gangrene and death does not occur, the gall-bladder has sustained irreparable damages; the patient does not again make a complete recovery.

One or more large gall stones in the bladder do not usually present as definite colic symptoms, as they do not become impacted like a small one, but while not so classical, they do cause reasonably definite symptoms and even quite severe ones. It is also true

that two or three stones in the common duct are less likely to become impacted and cause jaundice than a single stone.

Obstruction of the cystic duct, whether from stone, inflammation or stricture resulting from ulcer, may not produce gangrene or perforation, but instead, the bile may be absorbed and the bladder remain distended with a mucoid liquid, so-called cystic gall-bladder; or even in turn this may be absorbed, leaving the viscus contracted. If the infection is acute, empyemia or perforation with abscess and local peritonitis, or even general peritonitis, and death may result.

Impacted stones with severe infection may slough into the duodenum, transverse colon, stomach, or backward into the liver. I have seen one of the latter cases in which the stone which was imbedded in an abscess in the liver, weighed eight ounces. Stones are often lodged in the cystic duct when not impacted, permitting intermittent drainage, each movement, however, being painful. When they become infected and the gall-bladder contracted, absorption takes place from the distended duct which is abundantly supplied with lymphatics; when each attack is then accompanied by chills and very high fever.

The cystic duct stone attacks resemble common duct stone attacks, minus jaundice, but these patients look very sick, lose flesh, and have high right rectus rigidity and tenderness on deep pressure over the gall-bladder.

Dr. Mayo describes common duct stones as the fourth stage of the disease, and says up to this time it is a local disease curable by removal of the stone, with or without the gall-bladder; but once the great duct of the liver becomes involved, it is most serious, as all the ducts of the liver

are exposed to infection and the functions of the organ severely interfered with.

When the stone first enters the common duct, there is jaundice, but after a time the stone forms a diverticulum, having action like a ball-valve, and the jaundice disappears, to return again with the next impaction; the frequency of the attacks depending, as before mentioned, upon whether there is more than one stone in the duct. The early stages of jaundice due to stones is intermittent, varying from day to day, while that due to tumor or malignancy is constant, usually painless, and if of long standing is accompanied by tumor. Duct stone colic is not as severe as the typical gall-bladder attack owing to the absence of the contraction of the muscular gall-bladder wall; the duct wall containing but few muscular fibers and no serous coat with its extensive nerve supply.

Involvement of the pancreas from gall-bladder disease is common; acute pancreatitis rare; necrosis more frequent; and chronic pancreatitis most common of all.

Jaundice in gall-bladder disease always means involvement of the common duct and is due to one of three causes: First, infection, which has extended down the cystic duct from the bladder; second, by stones in the duct; third, pressure from pancreatitis or tumor, usually malignant.

We must then recognize that jaundice is a grave condition which has great surgical significance, indicating that the disease is no longer simple and confined to an almost useless organ, and that simple means of relief will not suffice. It should also be remembered that continuous jaundice of three months' standing is probably incurable by any means, since permanent changes in the blood have taken



place from which the patient cannot recover. Jaundice due to descending infection usually follows gall-bladder attacks and is not as severe or lasting as when due to common duct stones.

Mayo also rightly says that gall stone are foreign bodies and are actually and potentially a great menace to their host.

The mortality from operating simple gall stone diseases is less than one-third of one per cent., and the rule is that the patients have ample evidence to enable diagnosis and removal during this favorable period. More than one-half of the patients operated upon at the present time have passed beyond this simple condition, but if the disease is still confined to the gall-bladder and cystic duct, the mortality is not above one per cent.

When the stones are in the common duct, which occurs in about fifteen per cent. of the cases operated, the average mortality is not far from twelve per cent.; the mild cases, without infection and jaundice about ten per cent.; and with complete obstruction and infection about thirty per cent.; while from cancer, which is often present, it is very much greater still.

Cholecystitis, even when not cystic, is generally manifested by severe and persistent vomiting, which is immediately relieved by drainage of the gall-bladder; several such cases having come under my observation.

For simple gall stones proper, cholecystostomy with removal of the stones is required, and should have a death rate nearly nil; but when stones are found in the common duct, a distinct death rate must be expected. When in the cystic duct, requiring incision, it is often best to remove the bladder to prevent stricture, and cystic gall-bladder, or permanent fistulae.

Cystic gall-bladder may occasionally be cured by drainage, but this cannot be depended upon, complete removal being better. Cholecystectomy, however, should not be done in common duct stone cases unless absolutely necessary, the gall-bladder furnishes a valuable means of draining the liver into an intestine, should the common duct be obstructed by stricture or new growth.

Ample and sufficient drainage should be provided after removal of stones. I have lost one case five days after removing duct stones from defective drainage; the abdomen at post-mortem being full of bile. Since this accident I have used in all cases where complete inversion and safe drainage is impossible, a large rubber tube coffer-dam, split on the side next to the liver, and notched to permit passage of the common duct through it. The tube is so placed that it entirely surrounds the gall-bladder stump, and the small tube which has been fastened into the common duct if it has been opened.

All the diseased areas and drainage tubes with one extra wick drain are made to pass out through this large tube, which is made secure by first stitching it to the deep structures with plain cat-gut, then again to the skin. This large drain can be removed after five or six days and the other tubes and drains, when they have served their purpose.

Common duct stones located near the duodenum should be removed by the McBurney transduodenal route and closed without drainage. Those near the liver, through a longitudinal duct incision made over the stone and the duct drained by inserting into it a small rubber tube split at the ends, fastening it there with cat-gut.

Gangrenous, malignant, cystic, pyæmic, and very thick walled gall-bladders, when the common duct is patulous, should, when possible, be removed to prevent extension of the disease into the ducts and surrounding tissues, or permanent fistula if simply drained.

Removal of the gall-bladder, if the patient is not too fat or has too many adhesions, is not a difficult procedure if done from below upwards, after clamping the cystic artery and duct. The artery may be tied separately and the duct drained, but this is not often necessary; drainage of the stump should, however, be provided for if the entire gall-bladder has been removed. It is well during its removal to leave a portion of the serosa of the gall-bladder attached to the liver to permit over-suturing to cover the raw surface.

Simple cholecystostomy consists of draining through a small rubber tube with the cut edges of the gall-bladder inverted, and fastened to the tube with a purse-string of fine cat-gut, the tube being brought out through a stab wound as near the bladder as possible, permitting primary closure of the long incision. To avoid excessive liver, peritoneum and gall-bladder adhesions the gall-bladder and peritoneum should not be stitched together. Permanent kinking of the common duct, causing a fistula to result, may be caused by stitching a small gall-bladder to the peritoneum.

Stomach and duodenal adhesions to the liver or gall-bladder should be separated and the raw surfaces stitched over.

It is my custom to examine for gall stones in all abdominal operations requiring an incision large enough to admit a hand, and when found, if the patient's condition will permit, they are at once removed. If the gall-bladder is not contracted, or duct stones present, it will require but ten or twelve minutes extra to remove the stones and drain the bladder.

The best incision for gall-bladder work is the four-inch mid-right rectus one, with partial delivery of the liver. If duct stones are found, this makes them most accessible and permits the complete closure of the incision, with drainage through a small stab wound. The tube is passed into a whisky flask and fastened in the dressings, thus preventing their soiling and wound infections.

In conclusion, I would add that gastralgia, wind colic, etc., are, I believe, quite as often due to gall-bladder diseases as appendicitis, and that one of these conditions will account for a very large majority of all abdominal pain; and further that all such pains which are not relieved by one dose of morphin are more safely treated by surgery than by any other means. Recurring attacks of pain at frequent intervals, even though one dose of morphin does give relief, are still better treated surgically.

Gall-bladder surgery is usually easy, but I am occasionally rather forcibly reminded of a statement accredited to Kehr, that one should not do gall-bladder surgery until he shall have done at least one hundred cases.

Consolidated Realty Bldg.

## RELATION OF RABIES TO PUBLIC HEALTH.

BY STANLEY P. BLACK, M.D., LOS ANGELES.

In selecting the subject of hydrophobia as a topic I inadvertently overlooked the fact that the subject had

been discussed at the last joint meeting of these two societies. I have concluded, therefore, to take up this phase

of the question: "Relation of the Rabies to Public Health."

The confusion in the mind of the public, which has arisen, of the very existence of the disease is an evidence of the activity of some who for some unknown purpose oppose the prevention of the disease by the only known measure, viz, effective muzzling of dogs. This false idea of the non-existence of hydrophobia can be explained first, by the varied symptoms in the dog and secondly, by the fact that the vast majority of physicians have never seen a case in the human, and thirdly, to the few cases of pseudo-hydrophobia which is, of course, simply a form of hysteria.

Under the first heading, canine symptomatology, we must realize that in some other diseases, as e.g., typhoid, the symptoms vary widely in various cases. In rabies in the dog there are as we know two forms: Dumb and furious. In the former the symptoms are practically uniform, consisting of, first, a paralysis of the lower jaw with usually great nervousness and a peculiar staring look in the eyes. Later, paresis or paralysis of the hind legs develops.

In the second form there is a more variegated symptomatology. However, the prevailing symptom is nervousness exhibited in play or in irritability and the tendency to bite and to bite indiscriminately, either human beings, other animals, or inanimate objects. At times the animal may be friendly to his friends or even to strangers, and often seems to yearn for sympathy. The animal has little or no appetite. Often the dog will disappear from his home and be gone for a night and sometimes for a day or two. This is probably due to his extreme nervousness. Sometimes they wander many miles from home.

At times the animal will "run amuck" biting at anything which comes in his way, but this is not usual. Later the case may develop into the dumb form with the characteristic paralysis. In neither form is there fear of water, or in other words is there hydrophobia. In both forms there is usually a profuse discharge of glairy saliva, which often runs from the mouth. With such multiplicity of symptoms, which do not meet the popular idea of a mad dog, it is easy to see that the laity may not comprehend the diagnosis of rabies when the dog is friendly and laps at water eagerly.

The so-called humanitarian as embodied in so many of the members of the Humane Society, opposes the muzzling of dogs. To be sure, a dog unaccustomed to a muzzle does not like it any more than a woman likes a hobble skirt. A muzzle properly constructed is not cruel. The dog can open his mouth, yawn and drink, but he cannot bite. In Germany, where muzzling of dogs is strictly enforced, the dogs are accustomed to muzzles from their puppyhood and they do not resent them. I have personally seen dogs apparently overjoyed at being shown their muzzles, for it meant an outing for them. One hundred and eleven deaths in the human in the United States from hydrophobia during the year of 1908 were collected by Drs. Kerr and Stimson of the U. S. Public Health and Marine Hospital. Four deaths in Southern California have occurred in the past twelve months. The last case was a girl of five years whom I had under Pasteur treatment. The child had been bitten clear through the lip and on the nose by a dog whose brain showed Negri bodies. The treatment began the next day after the bite, but the symptoms of the hydrophobia began sixteen days



after the bite, and death occurred forty-eight hours later. Negri bodies were found in her brain.

This is not a large number compared with other preventable disease, but enough and more than enough to warrant us in endeavoring to protect the public from this disease, one which is invariably fatal, and where the sufferings of the victim are so horrible.

How can we best accomplish the desired result? Legislation alone is of little avail unless we have the sympathy of an intelligent public behind us. In Los Angeles an ordinance was, after repeated urging by the medical societies, passed. However, the police did not enforce it. Why? Because the daily papers failed to endorse it and even ridiculed it. When the police would arrest a citizen for its violation the police judge would remit the fine. Finally in sheer desperation the Board of Health recommended the repeal of the ordinance.

In Pasadena I had a somewhat similar experience, and we are today with-

out a protecting ordinance either in Los Angeles county or city or in the surrounding towns.

The only solution is the education of the laity. How this can best be accomplished is the problem. The newspapers almost without exception are opposed to any publicity of any kind which they believe would harm this section of the country. Surely as poor a policy as was shown in the case of plague in San Francisco. An open and known foe is far less dangerous than a concealed or ambushed enemy.

Therefore, let us in the interest of the protection of the public health, use every endeavor to educate the public for their own protection. If they can be enlightened as to the existence of the disease in Southern California we certainly can count on their support. If we have the support of the people, the Supervisors and Councils will pass the necessary ordinance and the police will enforce them.

Auditorium Building.

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## DIAGNOSIS OF FRACTURES.

BY BERNARD J. O'NEILL, M.D., SAN DIEGO, CALIFORNIA.

As a rule fractures may be recognized without difficulty, but so many cases have proved sources of error in diagnosis and of failure in treatment that too much attention cannot be paid to their various signs and symptoms. There is no need here to go into details regarding all of these, but it might be well to call attention to a few of the points that are sometimes misleading.

In the first place, the severity of the trauma need not be great. I have seen a doctor break the humerus of a patient while assisting him to turn over in bed; another case I have seen

where a boy of nine fractured his femur in the middle third by kicking a football. Both these were cases of *Fragilitas Ossium*. Loss of function need not be complete. I have seen a patient walk into the hospital with the head of his femur driven through the acetabulum into the pelvic cavity as a result of a fall. Crepitus, deformity, signs of local trauma, and false point of motion may all be absent. Even the X-ray is not always reliable. While it is undoubtedly by far the best single agent at our command in recognizing a fracture and while it will nearly always give us an early

and exact idea of the condition present, still it is at times misleading and may either show an apparent fracture where none exists or show no abnormality where a fracture can be recognized by other means. These facts, taken in connection with the absence of X-ray facilities, in many cases should lead us to cultivate our other means of diagnosis as highly as possible. During the last four years I have personally treated more than 160 fractures, affecting every bone in the body except the sternum, besides having had an opportunity to observe a large number under the care of others. My practice has always been to complete my diagnosis and to apply my dressings before sending the case to X-ray to confirm or disprove my findings. In a large number of my cases the classical symptoms have been absent and in these obscure cases I have come to rely more and more upon a sign which I have never seen very strongly emphasized in print, namely, **a definitely localized point of tenderness**. While it is often superfluous, this sign is unquestionably of the highest diagnostic importance in many doubtful cases, such as incomplete fractures, fractures without displacement of fragments, fractures about the hand and wrist and more especially about the foot and ankle. In the case of a badly bruised and swollen ankle it is often impossible to elicit crepitus or false point of motion, while the swelling completely masks any bony deformity that may exist. It is in these same cases that the X-ray is least reliable, on account of the overlapping and irregularity of the numerous small bones. In such a case there is usually a widespread tenderness, but, if one can find a definite point where the tenderness is distinctly greater than elsewhere, noticeable every time the

palpating finger returns to this point, and if this point is over a bone, one is justified in making at least a tentative diagnosis of fracture. This is more particularly true if continued pressure increases the pain. Time and again a diagnosis of fracture has been made practically upon this one point alone and in nearly every instance the radiograph or the subsequent course of the case has justified the diagnosis. Many of the so-called sprains of the ankle or the wrist are really fractures which might be recognized by proper attention to this sign, usually incomplete fractures, a crack, or a chip torn off the bone in addition to the true sprain. The statement is often made that "a sprain may be worse than a break;" and why not, when the "sprain" is often an unrecognized and improperly treated fracture? Many so-called sprained ankles are complicated by small fractures in the os calcis or other tarsal bones, while a small chip torn off the tibial or fibular attachments of the ankle ligaments is relatively common. However, it is not alone in injuries about the foot that this distinctly localized point of tenderness is of value; by its presence one may often recognize fractures at the upper end of the humerus, about the elbow, on the ribs, and in other locations where none of the more certain signs of fracture can be detected. And the radiograph, the later history of the case, or the final formation of a callus at this point will usually prove the diagnosis correct.

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Bold when Sure,  
Cautious in Danger,  
Kind to the Sick,  
Friends with Fellow-workers,  
Constant in Duty,  
Not greedy of Gain.

GUY DE CHAULIAC.

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EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

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## EDITORIAL

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### VICTORY OF DR. REA SMITH.

Dr. Rea Smith, a prominent Los Angeles surgeon, has been undergoing a \$50,000 suit for alleged damages. The prosecuting witness was operated on in August, 1909, for complete obstruction of the bowels, caused by carcinoma of the sigmoid, and the operation done at the time was for the establishment of an artificial anus. At the end of two weeks the man left the hospital and discharged the surgeon and from that time on was under the influence of a Christian Science Healer. Dr. Smith heard no more from the patient until a few weeks ago, when the prosecution for damages began, with the claim that there was no cancerous mass, and to prove their claim, after the trial had gone on for a week, asked for a vacation in the trial that a laparotomy might be performed on the prosecuting witness. This was granted by the judge.

The operation was performed and a carcinomatous mass was found and the diagnosis and opinion of Dr. Smith were demonstrated. The jury, after being out ten minutes, brought in a unanimous verdict for Doctor Smith.

The attorney for the defense was Gurney Newlin, Esq., who ably represented the California State Medical Society.

Dr. Smith and Mr. Newlin established a precedent in this case that will prove a forceful warning to future would-be prosecutors. This case also shows the efficiency of the defense work of the California State Medical Society. Still the great wrong of it all! Here is Dr. Rea Smith, first a graduate of Stanford University, then a graduate of the Medical Department of the University of Pennsylvania, then an Interne in the University Hospital, Philadelphia, then seven years of most successful practice



in Los Angeles, and after all that to be put through the harrowing experience of this suit.

The prompt and unanimous verdict of the jury in his favor shows that the twelve men readily perceived the shallowness and injustice of the prosecution.

### PERNICIOUS ANAEMIA.

The masterful address on Pernicious Anaemia by E. Grawitz before the New York Academy of Medicine in October, 1909, is a very welcome contribution to the discussion of that subject. The lecturer is the director of the department of internal medicine, in Charlottenburg Hospital in Berlin, and for several years his courses on the blood have been famous. The New York address is based upon several hundred cases of pernicious anaemia which, according to his definition, are "cases of grave anaemia which arise without recognizable organic affection and without parasitic influence, as a result of a specific injury involving the red corpuscles."

The only blood findings which are strictly characteristic are the changes in the red cells, viz, the *poikilocytosis* of Quincke, and the marked dissimilarity in the content of hemoglobin in the individual cells. This is directly contrary to the current opinion of Erlich and others, but is defended by Grawitz at length and convincingly, and in such a controversy Grawitz outranks Erlich.

Among the causes of pernicious anaemia Grawitz considers intestinal intoxication the most important; he

believes that these toxins are derived from two sources, the growth in the stomach of pus cells from carious teeth, and other pathogenic microorganisms from the mouth, and from imperfect albuminous decomposition in gastric and intestinal digestion. He believes that both of these processes occur because of a deficiency of free hydrochloric acid in the stomach.

The theory of the nature of the intoxication is based upon the discovery by Rosman and Anderson and by others that the condition of anaphylaxis can be produced not only by subcutaneous injection of heterogenous albumen, but also by feeding it.

The other causes admitted by Grawitz are chronic hemorrhoidal hemorrhages and epistaxis. He excludes all other forms of hemorrhage.

The treatment recommended is based upon the theory of the causes of this disease. It seeks to (1) diminish the formation of the toxins, (2) remove any which are present, and (3) to save and increase resistance by rest, transfusion in selected cases, and by giving arsenic.

Meat and eggs are eliminated, permanently, from the diet, the patient is put to bed, gastric lavage and colon irrigation with saline solution are used, and when the appetite begins to return arsenic is given, and the older preparations preferred. Digitalis is given whenever indicated. Calomel and other antiseptics, and iron are not used. Hydrochloric acid is not given.

If transfusion is employed the reaction of the patient to the serum of the

proposed blood should be first carefully ascertained.

In several cases under observation in this city, in which the diagnosis of pernicious anaemia has been made with considerable care, there have been remarkable results under a therapy which tends to confirm the hydrochloric acid and gastro-intestinal intoxication theory, although differing in detail from that of Grawitz.

This reference is made in this connection because it tends to confirm the hydrochloric acid theory of Grawitz, and if the diagnoses are correct, indicates that the exclusion of meat and eggs from the diet may not always be necessary, and that the giving of hydrochloric acid is wise.

Grawitz's address is given in full in *The Medical Record*, Oct. 29, 1910, and will well repay careful study.

E. W.

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#### THE STATE PSYCHOPATHIC HOSPITAL.

Although less than three months old, the Psychopathic Association of California has prepared and secured the introduction in the Legislature of a bill providing for a new State hospital for the insane, to be located within thirty miles of Los Angeles.

The Psychopathic Association was organized on November 14, at the home of Mr. and Mrs. W. S. James, 521 Shatto Place, by persons who had already held two meetings to consider the needs of mental defectives in Los Angeles and neighboring counties. The following officers were elected:

Curtis D. Wilbur, President; W. S. James, Secretary; Drs. Charles L. Allen, James T. Fisher, James H. McBride, Ross Moore, C. H. Whitman, and Thomas J. Orbison, Vice-Presidents. The ladies identified with this movement are Mrs. W. S. James, Mrs. Oliver P. Clark, Mrs. Geo. I. Kyte, and Miss Ellen Augusta Lamb—the latter having gone to Sacramento in the interest of the bill.

The State Hospital bill was decided upon at a meeting of the Association held on January 3 at the office of Dr. H. G. Brainerd. The hospital is designed to care especially for such insane persons as are able to work at "gainful occupations," for epileptics and for inebriates. In conformity with the voluntary commitment bill fathered by Dr. Hatch of the State Commission in Lunacy, this hospital bill provides for commitment by request of the patient or his guardian, one of its objects being to make ready accommodations for the large number of persons from the southern part of the State who may be expected to apply for State care after the Hatch bill becomes law, and for whom the hospital at Patton will not have room even after additions now planned for have been made.

The population of Patton—Southern California Hospital for the Insane—is approaching the 1500 mark, after reaching which it has been found that it is neither desirable nor economical to enlarge an institutional plant. For non-insane epileptics and inebriates there is absolutely no pro-

vision in Southern California. From every point of view, therefore, the new hospital is a necessity, and the members of the Psychopathic Association, who have devoted much time and labor to considering the situation and its demands, have secured the support of many members of the Legislature, and expect the bill, which carries an appropriation of \$450,000, to pass without delay.

As Chairman of the Southern California Committee on Epilepsy, Dr. Ross Moore was interested some four years ago in an effort to found a colony for epileptics near this city, and was ably assisted by Miss Katharine R. Fisher, Secretary. The impossibility of securing, so soon after the San Francisco disaster, either private or State aid, caused the project to be abandoned. The committee, however, collected information and material which will be useful to the present organization, and it is expected that the new institution will cover in its scope all that the earlier project called for and much more.

Although the bill does not specify details, both the Psychopathic Association and the Commission in Lunacy, under whose control the hospital will be, favor its erection on the cottage plan, making it what is known in other states as a colony or village.

The Association is not confined to the furtherance of this project only, but has been formed with the general object of taking up the problem of the care of mental defectives with regard both to their own welfare and to that of the community.



## THE NON-SURGICAL TREATMENT OF DUODENAL ULCER.

A conservative estimate of the frequency of peptic ulcer indicate that it is found in about five per cent. of autopsies. A disease of such frequency is of considerable importance.

In the evolution of any given disease, it has always been that opposing views pertaining to its etiology, pathogenesis and treatment have been found in the literature, until the knowledge of the subject has become to a measure complete.

At the present, certain phases of duodenal ulcer are fairly well established, but others of equal or of greater importance remain for the future to work out. The pathogenesis of the duodenal ulcer is unknown. Both the medical and surgical treatment of the disease are, therefore, to a large degree empirical, and neither can rest upon a scientific basis until its etiology is understood.

It appears to be fairly well established that chronic ulcer is best treated surgically. Whether the surgical procedures now used will be those ultimately adopted by surgeons or not, it may safely be said that surgery has thus far furnished a higher percentage of cures than the non-surgical treatment, so much is this the case that it appears that in chronic ulcer it should be the treatment of choice.

But the results from the surgical treatment of chronic duodenal ulcer have been so brilliant that it has, unfortunately, to a marked degree,

changed the perspective of the disease to the extent that the conception of it has almost come to be a surgical one. We believe this to be wrong and it is our opinion that when the history of the evolution of duodenal ulcer shall have been written, that it will show that at the present period we owe to surgery even a greater debt than the benefits from operative procedures; viz, surgery has taught the definite and characteristic symptomology of the disease. In other words, the work of the surgeon up to this time has been of even greater diagnostic than of therapeutic value, for the reason that the hope of the future lies in the recognition of early cases at a time when they may prove curable by non-surgical treatment. In his latest work, Moynihan expresses such a hope.

Heretofore the frequency of duodenal ulcer was unrecognized. Only advanced cases, with evident manifestations such as hemorrhage or perforations, were diagnosed. Early or medical ulcers were considered and treated as acid gastritis, gastralgia or nervous dyspepsia, and it is useless to place an estimate upon the value of post medical treatment for it is more than probable that most of the ulcers so treated were chronic.

The recent diagnostic advance in the subject marks a new epoch, and the question that now presents itself is, that with early diagnosis, what can the non-surgical treatment accomplish?

After an unusually large surgical experience, Mayo deprecates the adop-

tion of surgical treatment in ulcers limited to the gastric or duodenal mucosa. These should, in his opinion, be treated medically, and others of large surgical experience voice the same sentiment. It is not difficult to forecast that the pendulum of opinion will swing from the present surgical conception of ulcer back to earlier and better medical treatment.

Suggestive of this and of the value of non-surgical treatment even in chronic ulcer, is the recent booklet by Herschell\* of London, who is convinced that the chief reason of failures, so frequently experienced in the cure of duodenal ulcers by medical means, is the half-hearted manner in which the treatment is carried out, and the neglect to make use of the results of recent scientific work.

The tendency of modern research is to show that a duodenal ulcer is caused by the direct action upon the intestinal wall of trypsin and other proteolytic ferments contained in the digestive fluids, and set free from disintegrated tissue-cells and leucocytes. In a condition of health the cells forming the duodenal wall are protected against these ferments by the presence of anti-enzymes and anti-lysins in the blood-serum. Under certain conditions at present not perfectly understood, these anti-bodies are absent from the blood-serum or present in diminished amount, and in consequence the duodenum becomes vulnerable to the lytic fluids with which it

comes in contact. A local lesion is in consequence liable to be set up, especially at the spot upon which impinges the jet of chyme from the stomach, or at a point of local stress such as an extravasation, or the drag of a gastroptosis upon an adhesion.

It has been found experimentally that gastric ulcers can be produced at will by feeding dogs with living colon bacilli. The further influence that infections may play in the production of duodenal ulcers is suggested by the observations of Roseneau and Anderson, of the hygienic laboratory at Washington, who noticed that among the guinea pigs used to standardize diphtheria antitoxin, there were areas of congestive hemorrhage and ulceration at or near the pylorus in at least half of those which died before the tenth day.

In many cases anaemia is met with in conjunction with ulcer of the duodenum and whilst we have as yet no knowledge of any relationship between the two, the important work of Futterer is worthy of note. By a series of experiments upon animals, he demonstrated that an ulcer made by excising a small portion of the mucous membrane of the stomach, could be prevented from healing for an indefinite period, if the animal was kept in a condition of anaemia by the administration of haemolytic substances.

Herschell considers that in the treatment of duodenal ulcers, in addition to a diet that will protect the ulcerated mucosa, the correction of anaemia and the prevention of putrefactive and

\*The Non-Surgical Treatment of Duodenal Ulcer, by George Herschell, M.D., Lond. Henry J. Glasher, Wigmore Street, W., 1919.

infectious processes in the digestive tract, that an attempt be made to remedy the deficiency of antitryptic and antilytic substances in the blood. The presence of anti-enzymes and antilytins in normal serum having been definitely established by laboratory work, its empirical administration as a possible means of re-establishing the natural condition of immunity of the gastric and duodenal mucous membrane was first suggested by Hort. On the whole the clinical results obtained by it have been surprisingly good, and more than justify its routine administration. Normal horse-serum has the advantage of not only containing a very large quantity of anti-bodies, but also of being an article of commerce and easily obtainable. In cases of duodenal ulcer it is best given by the mouth to avoid the risk of the unpleasant toxic effects occasionally following the hypodermic administration of serums, and to avail ourselves of its direct stimulating effect upon the surface of the ulcer itself, and for the further reason that it will fix any hydrochloric acid and residue of tryptic and peptic bodies remaining uncombined with the proteid of the food in the stomach. Serum has been shown to contain not only the protective bodies which antagonize the destructive toxins of the cells and bacteria, but also substances which stimulate the repair of tissues. These stimulins can be demonstrated by the reaction produced when normal serum is applied to an old sluggish superficial ulcer.

In addition to the foregoing, Dr.

Herschell discusses measures toward the reduction of the acidity and peptic power of the gastric juice, measures toward securing the stomach against distension, and goes on to say that he sees no valid reason why the probability of a permanent cure should not be as great as after a gastro-enterostomy. It is quite erroneous to suppose that there is something magical in an operation which can remove the constitutional condition which allows the formation of the ulcer. The operation, by providing an additional outlet from the stomach, prevents the possibility of distension arising whenever the pylorus becomes spasmodically contracted, and by allowing a regurgitation of bile and pancreatic juice into the stomach diminishes the acidity of the gastric juice. It is difficult to see what more it can do. And as we can imitate these effects almost entirely by non-surgical treatment, there is no reason why the result should not be the same. Furthermore, we know that anastomotic openings do not keep open indefinitely, and there is no reason which can be perceived why a patient whose ulcer has been cured by operation should not after a few months be in exactly the same position with respect to recurrence as one in whom the healing has been brought about by non-surgical means.

DUDLEY FULTON.

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#### LOS ANGELES MEET A. M. A.

At a recent meeting of the Executive Committee, at which Dr. H. Bert Ellis presided, Dr. F. C. E. Mattison reported that Pasadena wanted every



member of the A. M. A. and accompanying members of his family, for one day—Friday, June 30th. The Pasadena day programme would be first: automobile ride through Pasadena's orange groves and avenues; second, Spanish barbecue in the Sunken Gardens of Adolphus Busch. At this barbecue, where it is expected that ten thousand will be entertained, the cooks and waiters will be in Spanish costume and three bands will discourse music. Third: The chariot races that thrilled one hundred thousand people on New Year's day will be repeated. These chariot races surpass in speed and abandon those of the ancients.

The Los Angeles and Pasadena sections realize that the chairmen of the various sections will take care of the scientific part of this meeting and therefore are devoting themselves to giving the guests from the East as comprehensive an idea of this far-away part of the United States as possible in the limited time at their command.

As the following quotations testify, the Los Angeles daily papers are wide awake in regard to entertaining our prospective guests. The following from the Times and Express evince their interest:

#### **DOCTORS FLOCKING HERE.**

**Great Medical Associations Decide to Hold Their Conventions in Los Angeles; Expect Large Attendance.**

Of the 137,000 physicians in the United States and Canada, 33,000 belong to the American Medical Association, which will hold its national meeting in Los Angeles, beginning June 26.

Since this great national association has decided to come here, other societies of physicians have concluded to do likewise. The Arizona Medical Association, which was to meet in Bisbee in May, has just held a special meeting and changed the meeting to Los Angeles, synchronously with that of the A.M.A. The secretary of the Arizona Medical Association, Dr. John W. Flinn of Prescott, says that they will close their sessions the day before the meeting of the A.M.A. and will then adjourn to attend the several sections of that national body. The Arizona people will hold their annual banquet on Monday evening, June 26, probably at the University Club.

The American Association of Editors of Medical Journals have also decided to hold their national session in Los Angeles, beginning June 24. They will also give a banquet and it will probably be on Monday evening, June 26. Their banquets of past years have always been brilliant affairs.

The American Academy of Medicine, which is composed entirely of physicians who have had university training previous to entering a medical college, will hold their national meeting in this city. Their meetings will begin June 24. While the A.M.A. is the greatest body of physicians in the world, the American Academy of Medicine is the most aristocratic. Dr. J. H. McBride of Pasadena is its president.—Los Angeles Daily Times, January 21, 1911.

#### **WILL ENTERTAIN**

**MANY PHYSICIANS.**

**Los Angeles Is Trying to Raise \$40,000  
—Pasadena Has Fund.**

The American Medical Association will meet in Los Angeles on June 26. There are 137,000 physicians in the United States and Canada and 33,000

of them belong to the American Medical Association.

Los Angeles is endeavoring to raise \$40,000 to entertain the 15,000 people, 10,000 physicians and 5000 who will be members of the families, but Pasadena has already, under the leadership of the Board of Trade, made arrangements to expend \$10,000 in entertaining the doctors on Friday of the week they will be here, while at the same time the physicians of Pasadena have given \$3000 to the Los Angeles fund.

On Pasadena day they will entertain the doctors with a typical Mexican barbecue. They will also repeat the chariot races and take the visitors for an automobile ride around the city.

Word has just been received that the Arizona Medical Association will hold its annual meeting in Los Angeles and give a great banquet there and keep open house the evening before the A.M.A. begins its session.

The American Academy of Medicine, an influential organization, has also decided to have its meeting in Los Angeles at the same time.

The American Association of Editors of Medical Journals will also hold their session two or three days before the meeting of the A.M.A. They have completed arrangements for a banquet, which will probably be one of the most elegant affairs of the week.—The Los Angeles Express, January 21, 1911.

The following is the tentative programme:

A.M.A. meeting will be held during week commencing June 26th, 1911.

Scientific sections will hold meetings on Tuesday, Wednesday, Thursday and perhaps on Friday morning.

Evening programme will be as follows:

Monday night—Banquets and smokers of the editors and of auxiliary societies.

Tuesday night—Banquets and smokers of the scientific sections and reunions of college societies.

Wednesday night—Reception to the A.M.A. President at the Shrine Auditorium with individual receptions.

Thursday night—Smoker, probably at the Shrine Auditorium.

Friday—Pasadena Day, with evening at the beaches.

Entertainment to the ladies will be held in the afternoons.

Mrs. Walter Lindley has been requested by the Executive Committee to organize a committee of ladies to provide the afternoon entertainment for the visitors.

The following is the list of subscribers to date for the entertainment of the A.M.A.:

C. B. Nichols, Albert Soiland, Rose Bullard, Frank Bullard, Chas. Lewis Allen, Idris B. Gregory (Ont.), Ethel L. Leonard, H. G. Brainert, R. L. Cunningham, D. D. Thornton, Ross Harris, A. J. Scott, Jr., Randell Hutchinson, P. H. Sunde, Grant G. Speer, George S. Eddy, Donald G. Skeeel, Harry G. Marxmiller, Nannie C. Dunsmoor, J. T. Stewart, J. T. M. Allan, E. M. Lazard, Barton Dozier, R. C. Chaffin, E. L. H. Swift, W. J. Barlow, H. Bert Ellis, Norman Bridge, F. M. Pottenger, Walter Lindley, Titian J. Coffey, Granville MacGowan, George W. Lasher, Andrew S. Lobingier, Jos. M. King, J. H. McBride, Fitch C. E. Mattison, Stanley P. Black, W. H. Roberts, A. T. Newcomb, H. H. Sherck, W. T. Bishop, H. B. Stehman, Thos. J. Orbison, Charles D. Lockwood, H. A. Kiefer, Charles Lee King, W. P. Milspaugh, P. Newmark, R. Wernigk, A. G. Miller, E. T. Dillon, A. Davidson, Lewis Web-

ber, H. M. Rooney, A. P. Wilson, C. P. H. Paul, A. W. Hanlon, S. J. Hinman, J. E. Pottenger, W. S. Clark, C. H. Whitman, W. L. Huggins, M. L. Loomis, Henry M. Herbert, C. E. Zerfing, Laura B. Bennett, J. M. Ford, F. C. Corey, A. F. Speicher, P. S. Dougherty, A. W. Levensgood, A. J. Wagner, J. J. Bleecker, H. G. Cates, A. L. Kelsey, Tom Davidson, Paul Bresee, C. H. Criley, Everett Beech, John Kirkpatrick, H. A. Putnam, S. A. Ellis, C. P. Thomas, G. A. Broughton, H. E. Southworth, John Oldham, W. H. Kiger, W. S. Carter, C. T. Browning, Boardman Reed, J. M. Armstrong, O. R. Stafford, J. B. Cutter, G. A. Fielding, A. B. Hromadko, Phillip S. Chancellor, Eleanor Seymour, Cecelia Reiche, Emma Carson, Henry Sherry, C. A. Briggs, Eliot Alden, E. H. McMillan, E. G. Mattison, Dudley Fulton, Donald Frick, W. W. Richardson, A. F. Godin, C. W. Yerxa, H. O. Eversole, C. W. Bonyng, A. M. Duncan, F. T. Bicknell, Paul E. Simonds, Chas. E. Atkinson, Elbert Wing, A. Tyroler, James H. Seymour, R. S. Petter, F. O. Yost, A. F. Wagner, Laura Bennett, V. C. Armstrong, Gertrude Seabolt, Nettie Hammond, M. H. Bewley, A. Fenyas, George Deacon, S. J. Mattison, E. Clarence Moore, William A. Edwards, B. Sassella, Wm. F. Perry, H. M. Voorhees, E. O. Palmer, E. W. Fleming, J. R. French, C. B. Jones, Earl Sweet, Wm. Duffield, F. C. Ferry, Charles W. Bryson, O. O. Witherbee, F. J. Kruehl, G. F. Lund, W. L. Zuill, J. M. Dunsmoor, Margaret M. Morris, Caroline McQuiston, Josephine Jackson, A. J. Murrieta, N. C. Dunsmoor, Walter M. Boyd, Thomas W. O'Reilly, Harry B. Fasig, Harry W. Murray, John Schmitz and M. L. Martin. An additional list that came in too late for February issue will appear in March.

## CHRISTIAN SCIENCE.

### No. I.

We have never taken time to make excerpts from Mrs. Eddy's works for the benefit of our readers and medical men are generally too busy to do this, therefore we are glad to avail ourselves of the labors of Dr. (Rev.) J. M. Buckley as they are appearing in *The Christian Advocate* (N. Y.) In order to know what dangerous fallacies we have to meet this work of Dr. Buckley should be read by every physician:

### MRS. EDDY'S ERRORS IN COMMON SENSE, SCIENCE AND THE BIBLE.

The phrase "common sense" explains itself to all who possess it. The word "Science" means knowledge gained, verified by exact observation, sound reasoning, and tested by every known means. The purpose of the articles, of which this is the first, is to show from Mrs. Eddy's own words published in her standard works that her teachings are fantastical and her basal principles false.

### WHAT DID MRS. EDDY TEACH CONCERNING MIND, MATTER AND MAN?

We propose a contrast between Natural Science and Eddyism.

Natural Science recognizes—as under natural laws—the regulation and movements of the sun, stars, planets, comets, the tides and the trade winds; also the law that every seed bringeth forth its own kind and that the perpetuity of the human race and of the various divisions of that race are all the result of cause and effect.

The human body, in health and disease, is both preserved and destroyed in harmony with natural laws. It has life, and enters the world with a system or set of systems, such as the



nervous, respiratory, circulatory, digestive. Natural Science declares that the life of the body is maintained by air, water, food, light, heat, exercise, rest and sleep.

Health, according to Natural Science, is not a thing, but a condition of the body; that is, the being hale, sound or whole and free from pain.

Disease may be local or general, functional or organic. It prevents ease in feeling, acting, thinking, sleeping, eating, digesting and eliminating.

The causes of disease are recognized by Medical Science as accidents or violence; over—or too continuous—exertion; over or under feeding; the introduction of poison into the body, or the generation of poison within it; effete matter unremoved from the body, germs, etc.

But independent of these causes of disease, the vital principle in man and animals is limited in time, so that the human race, like the lower animals, must die—that is, the heart will cease to beat and the lungs to breathe.

The inanimate body then falls into the realm of non-vital elements: "Dust to dust, earth to earth, ashes to ashes." All now living are doomed to die within a comparatively short time; and all who have died on earth—so far as Science knows—have done so by disease, old age, accident or unintentional or intentional violence.

It is a settled fact of Science that Surgery can prolong life, by repairing injury or by making it possible for natural strength to do so. Also countless thousands have survived necessary surgical operations by being placed under the influence of an anæsthetic.

It is another settled fact that Hygiene will prevent or relieve various forms of illness, or give nature an op-

portunity to do so; and Medicines appropriate in kind and amount may help nature in its work of rebuilding or expelling. that the Oculist can frequently restore sight or increase it, and the Aurist remove the obstacles to hearing; and that Physicians, Surgeons and Specialists, by steadying and directing the mind of the patient, may increase courage and replace dejection by hope.

Also the Medical Profession is a unit in considering certain diseases to be self-limited, requiring no medical attention except for the purpose of maintaining strength or for detecting the symptoms of some other malady which may intervene.

We will begin the exposition of Mrs. Eddy's teachings by stating that in 1867 she taught a purely metaphysical system of healing. Her essays upon this subject were circulated among her students privately. In 1870 she copyrighted her first pamphlet, and did not publish it until six years afterward. In 1876 she organized a Christian Scientist Association, and in 1879, at a meeting of that association in Boston, she organized "A Mind Healing Church, Without Creeds, called The Church of Christ." Of this she became pastor. For nearly eight years she worked on Science and Health, with Key to the Scriptures, the first edition of which appeared in 1875.

#### HER "DISCOVERY."

In quoting from Science and Health, we use the edition of 1886.<sup>1</sup>

As to Mind, Matter and Man, this is the foundation of Mrs. Eddy's theory:

[p. 14.] My discovery—that the erring mortal views, misnamed mind, produce all the organic and animal action of the mortal body—set thought to work in new channels; and I demonstrated this as the leading factor in

<sup>1</sup>-From Science and Health, with Key to the Scriptures, by Mary Baker G. Eddy 24th edition, revised. Boston, 1886.

Mind-science—that Mind is all, and matter naught.

Let the reader pause long enough to see what her words mean when she says:

[p. 182.] Disease is an impression originating in the unconscious mortal mind, and becoming at length a conscious belief that the body, or matter, suffers.

[p. 182.] You may scoff at my declaration that mortal mind produces lung complaints, and all other diseases. But I repeat it: sickness is a growth of illusion, springing from a seed of thought—either your own thought, or another's.

From this assertion she never departs.

To her students she frequently gives this caution:

[p. 297.] Remember that all is Mind, and there is no matter. You are only seeing and feeling a belief, whether it be cancer, deformity, consumption, or fracture that you deal with.

#### PHYSIOLOGY.

Mrs. Eddy's views of mortal mind compel her to write as follows:

[p. 168.] Physiology has a reputation in our land. Institutions honor it. To it Medicine bows the knee. Aside from this it remains to be proven whether physiology has improved mankind. We shall yet open our eyes to this fact, that calling on matter to remove what the human mind alone has occasioned is a mistake attended with grave consequences.

The central statement is her reassertion that the human mind alone has occasioned all that is called sickness or injury to the human body.

[p. 171.] Physiology is anti-Christian. It teaches us to have other rulers before Jehovah. The good it is supposed to do is evil, for it would rob man of a God-given heritage.

This passage is illustrated by another:

[p. 172.] Putting on the full armor of physiology, and obeying to the letter the so-called laws of health (so the statistics show) have neither diminished sickness nor lengthened life.

Diseases have multiplied and become more obstinate. Their chronic forms have become more frequent, the acute more fatal. There are more sudden deaths since our man-made theories have taken the place of primitive Truth.

The foregoing passage is contradicted by the history of the world for two thousand years. The plagues that swept over the habitable globe, destroying millions, have diminished in frequency, and those diseases that were thought to be fatal in every case have been brought under a high degree of control. "Primitive Truth" as respects disease in the old times of the world was in many cases primitive ignorance.

[p. 184.] When there were fewer doctors, and less thought was given to sanitary subjects, there were better constitutions and less disease. In olden times, who ever heard of dyspepsia, cerebro-spinal meningitis, hay-fever, and rose-cold?

This also is an error growing out of ignorance. Dyspepsia has come down from Hippocrates. Many maladies were gathered under one name. As medical science progressed it was found that one name covered several diseases, and at present each is treated with a higher degree of intelligence.

#### MRS. EDDY'S OPINION OF EXERCISE.

[p. 209.] Because the muscles of the blacksmith's arm are strongly developed, it does not follow that exercise did it, or that an arm less used must be fragile. If matter were the cause of action, and muscles, without the co-operation of mortal mind, could lift the hammer and smite the nail, it might be thought true that hammering enlarges the muscles. But the trip-hammer is not increased in size by exercise. Why not, since muscles are as material as wood and iron? Because mortal mind is not producing that result in the hammer.

This opinion of exercise, and this parallel between the hammer and the muscles of a human being, if intro-

duced in court proceedings to prove the author "not right in her intellectual," would have a great effect; but Mrs. Eddy repeats it on the next page:

[p. 210.] Not because of muscular exercise, but through the blacksmith's belief, comes the strength of his arm.

What does the reader think of the following:

[p. 171.] Is civilization but a higher state of idolatry, that man, in the nineteenth century, should bow down to a flesh-brush, to flannels and baths, to diet, exercise, air?

The sole meaning of the above passage is that the regulation of the "diet," "exercise" and the condition of the "air" have no connection with the preservation of health or the recovery from disease. The next passage includes cleanliness, but still includes air and exercise.

[p. 316.] I account it sinful and idolatrous to have more faith in drugs, diet, air, exercise, cleanliness, than in God, Truth, and Love, to keep the body harmonious, and make man undying.

It is understood that her theory of God, Truth and Love excludes all reference to diet, exercise and cleanliness as having any part in the preservation of health or the restoration from disease. There is another statement of the same kind:

[p. 376.] It is anything but scientific to diet, dose, and exercise, in order to aid the human body until the Divine Mind is ready to take the case.

And this is the way she talks of exercise when for many years she has been taking her exercise and air in a coach with the regularity of patients in a sanitarium!

If the reader thinks there must be some mystical truth underlying this nonsense concerning exercise, let him read the following:

[p. 122.] You would not say that a wheel is fatigued; and yet the body is just as material as the wheel. Setting aside what the human mind says of the body, it would never be weary, any more than the inanimate wheel.

Understanding this great fact rests you more than hours of repose.

#### THE USELESSNESS OF HYGIENE

This she classes with quackery, drugs, diet and exercise, as entirely useless; and on page 354 she sets it aside as with a wave of her hand:

[p. 354.] If half the attention given to hygiene were given to the study of Christian Science, and its elevation of thought, this alone would usher in the millennium.

Everywhere Mrs. Eddy demeans hygiene.

The foregoing quotations have not been wrenched from their connections, but are definite affirmations.

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## EDITORIAL NOTES

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Dr. James T. Murray has located in Glendale.

Dr. Thomas L. Rogers has located in Long Beach.

Infantile paralysis seems to be making headway throughout the Pacific Coast.

Dr. John L. Wehrly has been appointed County Physician for the county of Orange.

Dr. J. E. MacMillan of Pasadena fractured his right arm in an automobile accident on Jan. 7th.

Dr. J. C. Hearne and Dr. D. D. Whedon were recent visitors in Los Angeles from San Diego.

Dr. C. W. Bonyngue of Los Angeles is East devoting himself to laboratory work, particularly along the Wasserman line.



Dr. H. K. Beauchamp of Phoenix has been appointed Superintendent of the Territorial Insane Asylum, to succeed Dr. J. A. Ketcherside, resigned.

Drs. Theodore L. Davis, Theodore G. Finley and Elsa Hostman are now located in the Lissner building, 524 South Spring St.

The city trustees of Whittier, California, have appointed a Board of Health, upon which are Health Officer W. H. Stokes and Dr. H. P. Wilson.

Dr. Ralph W. Reynolds has opened an office at 564 E. Colorado street, Pasadena. Dr. Reynolds devotes himself to the ear, nose and throat.

Dr. C. H. Whitman has been re-appointed Superintendent of the Los Angeles County Hospital and Dr. Andrews Peterson as Assistant Superintendent.

Dr. C. L. Rich has resigned as surgeon of the Santa Fe at Fullerton and Dr. C. W. Harvey, of Anaheim has been appointed for the district of Fullerton, Anaheim and Olinda.

A bill has been introduced in the California Legislature providing for the location of a hospital in Southern California for the mildly insane, the epileptic and the inebriate.

Dr. Geo. E. Tucker, Health Officer of Riverside county, upon invitation of Dr. J. A. Champion, Health Officer of Colton, gave a stereopticon lecture on health topics in that city on Jan. 23rd.

Dr. John E. Adams, formerly of Flagstax, Ariz., has become associated with Dr. Thomas H. Winslow in Oakland, Cal. Their practice is limited to diseases of the eye, ear, nose and throat.

Dr. J. C. Bainbridge of Santa Barbara, chairman of the Democratic County Central Committee, has been

appointed County Physician of Santa Barbara county by a Republican Board of Supervisors.

Dr. C. E. Yount of Prescott spent the month of January in the East. The doctor accompanied a patient to Plainfield, N. J., and afterwards spent three weeks in New York, Chicago and Rochester, Minn.

Dr. Leonard and Dr. Stookey announce the opening of their regular quiz course preparatory for the California State Board of Medical Examiners in the Pathological Laboratory, 632 Auditorium building.

Dr. R. C. Schultz, aged 58 years, died in Los Angeles January 28, 1911. Dr. Schultz was a native of West Virginia and a graduate of the Medical University of New York City. He is survived by his wife and two daughters.

One of the most prominent physicians on the Pacific Coast writes: "I have always derived great pleasure and profit from the reading of your valuable periodical and hope it may continue to meet with all the success it so amply merits."

Dr. Edward Martin, professor of surgery of the medical department of the University of Pennsylvania was the guest of honor at a banquet given by the Los Angeles Alumnae of the U. of P. on Dec. 22nd. Dr. Martin has just reached the age of fifty.

Dr. James A. Metcalf died Jan. 18th at his home in Los Angeles. Dr. Metcalf was 52 years old, a graduate from the Louisville Medical College, and has practiced medicine in Los Angeles county for 20 years. He leaves a widow and five children.

Dr. Charles Lee King of Pasadena met with an automobile accident on Jan. 21st. There was a collision between his car and the street car and

it resulted in a wrecked automobile and the Doctor's having his left ankle broken and several minor bruises.

Dr. J. L. Avey, State Senator from Redlands, introduced a bill requiring a physician to practice under his own name. The maximum penalty for violation being fixed at \$1000 and one year's imprisonment. This is a very just law and we trust that Senator Avey's bill will be enacted.

At a meeting of the Santa Barbara County Medical Society held Jan. 16th the following officers were elected: Dr. Benjamin Bakewell, president; Dr. W. B. Cunnane, vice-president; Dr. C. C. Park and Dr. Wm. Thomas Lucas of Santa Maria, vice-presidents at large, and Dr. T. A. Stoddard, secretary and treasurer.

Dr. F. R. Williams, City Health Officer of Bisbee, Ariz., has introduced systematic and regular medical examinations of school children into the Bisbee schools. Dr. Williams is making these examinations himself, but receives no extra remuneration for this splendid service.

Eight Chinese doctors and three Americans were arrested in Los Angeles and will be prosecuted for practicing without license; the names are Grace Morton, C. S. Hastings, C. H. Chan, Sarah J. Tedford, Quong Tong, Henry Chung, Chung Hong, M. T. Yen, H. T. Chen, F. Leung and Lum Wing Yue.

Dr. Geo. W. Corey of Sawtelle, Los Angeles county, was the recipient of many congratulations Jan. 10th, when he attained his 78th year. Dr. Corey was born in Grand View, Ill., in 1833. He graduated from Rush Medical College in 1859. He was a surgeon in the army throughout the war and is still in active practice.

The San Diego physicians have adopted an insignia consisting of a red cross upon a circle of gold. Outside of the gold background is a circle in white upon which are the words "Physician of San Diego." It is about eight inches in diameter and is to be placed upon the hood of each physician's automobile and also upon the rear end of the car.

"I very rarely use alcohol in my practice. I think that its use is never essential. Physicians are using it less and less in the treatment of diseases owing to the recognition that it is a narcotic, not a stimulant, and that other narcotics are usually better when a narcotic is required."—Richard C. Cabot, M.D., Harvard Medical School.

Dr. Ludwig C. Adolph Kraemer, the oculist, died at his home in San Diego on the morning of Jan. 25th. He was a native of Germany, 46 years old, graduated at the University of Zurich, Switzerland, in 1894 and had been practicing in California—almost all of the time in San Diego—for 11 years. His remains were cremated in Los Angeles.

Dr. W. Jarvis Barlow, Dr. P. Newmark, Dr. O. O. Witherbee, Dr. W. W. Richardson, Dr. Ross Moore, Dr. W. Chalmers Francis, Dr. E. C. Moore and Dr. C. H. Whitman all unreservedly recommend Carl Grummer, masseur, 520 East 25th street, telephone Sunset South 7101, Los Angeles. Mr. Trummer offers his services in all lines of mechano-therapy.

A Los Angeles daily stated a short time since that the American Academy of Medicine is the most aristocratic body of physicians. Dr. John W. Flinn of Prescott writes: "If the American Academy of Medicine is the most aristocratic medical society where does

the Arizona Medical Association come in? If you do not think we are aristocratic read over our proposed constitution."

The monthly report of the Health Department shows that there were 460 births in Los Angeles in December, 1910. The number of deaths from all causes was 472. Of the 472 deaths, 38 had lived here less than three months, 33 between three and six months, 14 between six and twelve months, 136 between one and five years, 62 between five and ten years, 65 over ten years, 76 for life and 48 unknown.

At the annual meeting of the Board of Councilors of the Los Angeles County Medical Association the following committees were elected: Membership Committee—Dr. L. M. Powers, Chairman, three-year term; Dr. John C. Ferbert, two-year term; Dr. E. M. Lazard, one-year term. Medical Legal Committee—Dr. Geo. L. Cole, Chairman, three-year term; Dr. Wm. Duffield, two-year term; Dr. W. C. McArthur, one-year term.

In the California state examinations last December, of the 96 applicants, 28 were osteopaths. Of these 15 passed and 13 failed. As 63 per cent of the 96 passed the osteopaths almost held their own with other applicants. Of the 15 osteopaths who passed 8 had previously failed. Five had failed once, 2 failed twice and 1 had failed 3 times. The 15 osteopaths who passed averaged 74.8 per cent. each while the 45 other applicants who passed averaged 81.3 per cent.

Dr. Robert H. Babcock of Chicago, president of the Mississippi Valley Medical Association and formerly professor of Diseases of the Chest and of Clinical Medicine in the College of Physicians and Surgeons, Chicago, has been spending the winter in Pasadena. He has received many social atten-

tions from his professional friends in Los Angeles. Among the most notable of these were a dinner by Dr. W. Jarvis Barlow and a luncheon by Dr. Geo. L. Cole.

There were 3435 visitors to the Barlow Medical Library, 740 North Broadway, during the twelve months ending December 15th, 1910. During the same period there were 1769 visitors to the library of the Kings County (Brooklyn, N. Y.) Medical Society. The Kings County Library is one of the oldest and best equipped medical libraries in the United States. The late Dr. Charles Jewett, author of work on Obstetrics, left his valuable library to the Kings county institution. In order to get data on any medical subject in which you are especially interested or upon which you may be writing a paper, ring up Miss Weir, the librarian of the Barlow Medical Library, A9721.

A contest to decide the 25 most beautiful words in the English language conducted by the West Fifty-seventh street branch of the Y. M. C. A. was won by John Shea, a lawyer. Twenty-one of the 25 words submitted by Mr. Shea were accepted.

The words accepted are: Melody, splendor, adoration, eloquence, virtue, innocence, modesty, faith, joy, honor, radiance, nobility, sympathy, heaven, love, divine, hope, harmony, happiness, purity and liberty. The words rejected were grace, justice and truth.

The former two were stricken out, it was explained, because of the harshness of the "g" in grace, and the "j" in justice. The word "truth" was eliminated because of its metallic sound.

The Los Angeles daily papers have been taking an appreciative interest in the June meeting of the A. M. A. The Times of February seventh says:

Following the example of the American Medical Association, the American



Proctologic Association has decided to hold its national annual meeting in Los Angeles, beginning June 26. It has reserved seventy-five rooms at the Alexandria, which will be the headquarters of the society.

This makes five national associations that will hold their annual meetings in Los Angeles next June. The Arizona association is also coming.

The American Proctologic Association offers a prize of \$100 to the author of the best original essay on any disease of the colon, by a graduate or senior student of any medical school in the United States. The secretary, Dr. Lewis H. Adler, Jr., No. 1610 Arch street, Philadelphia, will give particulars.

It might look inhospitable for a Los Angeles man to take this prize.

Arrangements are being completed at Uplands and Ontario for all trains to stop long enough for every delegate to visit an orange orchard.

The Los Angeles Daily Times of Jan. 19th contains the following in regard to the establishing of a State Hospital and Dispensary in Los Angeles: A meeting of the Los Angeles delegation in the Assembly was held this afternoon at the request of Dr. George H. Kress, who is here urging the appropriation of \$250,000 for the establishing of a State hospital and dispensary for the medical college of the University of California on North Broadway. It is proposed to use the money in concrete buildings facing Castellar street. The delegation voted to support the appropriation unanimously, but gave Dr. Kress to understand that it had no sympathy with any aggressions between the different schools of medicine. The hospital is to be similar to the one established in San Francisco in connection with the university and had the approval of Pres. Benjamin Ide Wheeler. All the Los Angeles Senators will support it. Dr. Kress

promised that one dollar would be raised by subscription in Los Angeles for every dollar appropriated by the State.

The Evening Express of Jan. 19th contained the following: "Assemblyman Butler of Los Angeles is fathering an act to provide for the construction of hospital buildings at the Los Angeles department of medicine at the State University. The proposed site is North Broadway and Castellar streets, and an appropriation of \$250,000 is asked for to provide the building and equipment and for the expense of moving and improving the buildings now located on the property. Dr. Butler is enthusiastically pushing this measure and will endeavor to get an early report from the committee, of which he is a member, recommending its passage. The State University's dispensary at Los Angeles gives free medical and surgical attention to more than 7000 different citizens of Southern California each year and with returning patients treats more than 20,000 persons yearly. The dispensary property where this work is carried on was given to the State University by Los Angeles citizens, and the staff of physicians, surgeons and specialists also give their service without cost. The institution needs a hospital where the poor and the laboring classes can receive skilled medical and surgical attention free or at cost of board and keep.

## BOOK REVIEWS

**DIFFICULT LABOR.** By G. Ernest Herman M.B., Lond., F. R. C. P., F. R. C. S. New and Enlarged Edition, with Added Chapters on Retroversion of the Gravid Uterus and Puerperal Eclampsia. 547 pages, with 180 illustrations. Price \$2.50. William Wood & Company, New York.

The subject matter is arranged

under thirty-three appropriate chapter headings, beginning with Natural Labor, and ending with a chapter on Puerperal Eclampsia. In Chap. II, Occipito-Posterior Positions, the

author recommends rotation, by the left hand in the vagina and the right on the abdomen. Forceps rotation is condemned, "If you try to twist the head around with the forceps, one edge of the instrument is strongly pressed against the head, and the other is raised off it. The edge pressed in may injure the scalp or skull, and the edge raised may injure the mother."

Two ways of converting a **face presentation** into a vortex are given. 1. "Put two fingers in the vagina, with the other hand on the abdomen, press face up, by pressure on the jaws, and then on the forehead, at the same time press occiput down. 2. Schatz's method is by pressing the shoulders toward the dorsal aspect of the child, so as to undo the extension of the spine. Place the two hands on the abdomen, get them if possible below and in front of the shoulders; press the shoulders and chest of the child upwards, and to the side to which the child's back is turned. If you succeed in this, hold the shoulders up with one hand and with the other press the breech downward. While these manoeuvres may fail, they are harmless." Podalic version often will make possible delivery of unreduced face presentations, if the difficulty is recognized early. The author states that, "It is always wise to warn the patients friends that the child may be stillborn."

"The successful treatment of transverse presentation depends very largely upon early diagnosis." First try to "Rectify the position of the child by external manipulation." "This treatment should be preferred, because it is very desirable that the os should be dilated by the bag of membranes." This attempt not succeeding, internal manipulation becomes necessary. The author counsels promptness in execution if the safety

of the mother would be safeguarded.

Prolapse of the cord before rupture of the membranes often can be corrected by the "knee chest" position. Prolapse of the cord is far more serious in vortex presentations and calls for speedy relief, either by replacement of the cord or delivery of the child. The authors use of ergot in the second stage of labor does not conform to the accepted practice among American obstetricians. On page 137, is given an excellent differential diagnosis between uterine inertia and tonic contraction of the uterus. Treatment of Placenta Praevia is given without temporising." As soon as ever Placenta Praevia is found out, be the bleeding great or little, labour ought to be brought on."

Chapter XXXIII on **Puerperal Eclampsia** is most interesting. The author's conclusions differ radically from many authorities. He sums up with, "Let labour go on naturally. Interfere only if some condition is present which would demand interference in a patient not suffering from eclampsia." Reasons and facts from which he derives this conclusion are ably marshalled and the chapter is worthy serious study. C. W. D.

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DIAGNOSIS AND TREATMENT OF WOMEN. By Harry Sturgeon Croson, M.D., Professor of Clinical Gynecology, Washington University, Gynecologist of Washington University. Etc. 2nd Edition. Revised and Enlarged, with 744 Engravings. St. Louis, Mo., C. V. Mosby 1919.

This work, which is devoted exclusively to the Diagnosis and Treatment of Diseases of Women, gives little or no attention to other considerations of the same subject, except that which is necessary to bring the work to its highest usefulness as a practical guide along the lines indicated.

Considerable attention, however, is given to the differential diagnosis of the various conditions requiring oper-

ative treatment and explaining in some detail what the operations are intended to accomplish, keeping in mind the after care necessary to complete restoration to health.

The author states that in his experience as a consultant and teacher, the two principal stumbling blocks encountered in the way of accurate gynecologic methods were 1st, the difficulty of determining exactly the conditions present in the pelvis and, 2nd, the lack of a clear understanding of the indications governing the particular treatment best adapted to each of the various classes of cases under each disease.

The illustrations, of which there are something over 270 original ones, are particularly clear and enlightening.

The first edition of the work came out in May, 1907, and it is gratifying to find that the reception accorded the first edition required the issuing of the second one, which came out in Sept., 1910.

Chapter one, which is devoted to the methods of gynecologic examinations, and which covers some 117 pages, is an exceedingly interesting one and well worthy of perusal by every practitioner doing gynecological work. There are many original illustrations, and the detail of examination is exceedingly commendable.

With regard to record keeping, he very truly says that "the principal advantage is not the permanent record it gives for reference after some years, but the fact that it systematizes and steadies and improves the physician's work day by day. Such an account of the case in black and white referred to frequently as the patient returns for treatment is a constant stimulus to accurate diagnosis and a constant help in the treatment, particularly if the case is a long continued one."

On page 27, in speaking of the Fluid Wave in ascites, he says: "A somewhat similar wave may be caused also by a thick layer of subcutaneous fat, (fat wave.)" In such cases, however, if an assistant press lightly in the median line with the ulnar edge of the hand the fat wave will stop at the line of pressure. (Illustrated by figure 36.)

In his operative treatment for the removal of fibroids, the question of whether it should be a super-vaginal historectomy or a total historectomy is discussed at some length, after making the statement that the mortality would be higher, and that the morbidity would be higher in removing the cervix in all cases, he makes a very clear and satisfactory discussion of the instances in which one or the other of the two methods should be pursued.

The discussion also of the question of the operability of fibroids seems to the reviewer one of the wisest and most conscientious statements found anywhere upon the subject.

While the reviewer started out with the feeling that there were already enough works of this character in the field, as he followed the discussion chapter after chapter with the fascination that would be found in our most excellent works of fiction, at the end he came to the conclusion that there is not only a place for this work in every library, but still further that there is no volume today that can take its place.

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PRINCIPLES OF PUBLIC HEALTH. A Simple Text-Book on Hygiene, Presenting the Principles Fundamental to the Conservation of Individual and Community Health. By Thos. D. Tuttle, B.S., M.D., Secretary and Executive Officer of the State Board of Health of Montana. Yonkers-on-Hudson, New York: World Book Company. Price 50 cents. Mailing price 60 cents.

This is another of those very useful books that are being published by the



World Book Company. It is lighting a lamp of knowledge for the child, the parent and the home that has heretofore burned very dimly.

**INDUCED CELL REPRODUCTION AND CANCER.** The Isolation of the Chemical Causes of Normal and of Augmented Asymmetrical Human Cell Division. By Hugh Campbell Ross, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Surgeon Royal Navy (Emergency List), Director of Special Researches at the Royal Southern Hospital, Liverpool; and Honorary Clinical Pathologist to the Royal Liverpool Hospital for Children; being the results of researches carried out by the author with the assistance of John Westray Cropper, M.B., M.Sc. (Lond.), M.R.C.S. (Eng.), L.R.C.P. (Lond.); Assistant to the Research Department of the Royal Southern Hospital, Liverpool, with 423 pages and 129 illustrations. Published at Philadelphia by P. Mackiston's Son & Co. Price \$4.50 net.

In this really interesting record of research the author develops another plausible theory as to the cause of cancer; granting that the premises he lays down are well drawn. Working with living cells, he induces reproduction under the microscope, accelerating and retarding the process at will with different substances. He imbeds the cells in a film of jelly and by incorporating various stains, extracts and drugs, he produces normal and atypical mitoses by a technique explained fully in the text, but too extensive for repetition in a review. He reduces the results of innumerable experiments to laws governing the diffusion of soluble agents through living cells and expressing the results by mathematical formulae. In his studies of auxetics, or exciters of reproduction, he shows that the products of dead cell disintegration are direct stimulants to cell division; for instance, krentin and xanthin he finds are chemical stimuli of this order. On this basis he explains certain tumors and hypertrophies. Given a certain continued irritation, mechanical or chemical, capable of producing cellular death, the products of disintegration of these cells, as auxetics, induce

a rapid proliferation with resultant tumor or hypertrophy.

Going a step further, he finds that alkaloidal substances added to the jelly films containing the ordinary, or "normal" auxetics, cause the cells to undergo very rapid proliferation with irregular and atypical mitoses. The mitotic figures and vigorous proliferation resemble in all features those found in malignant growths. Alkaloids, such as choline and cadaverine, resulting from the activity of bacteria of putrefaction, are especially active in producing this character of proliferation.

The basal conditions of malignancy he finds in sites of irritation leading to cell death in the presence of putrefactive products. These conditions are present in the usual sites of cancer, i. e., mouth, stomach, rectum, etc. etc. Here he builds his theory of the cause of cancer on the activity of normal auxetics in the presence of, and modified by, the alkaloids of putrefaction. He ingeniously invokes the well known age incidence of cancer, the site in old healed or healing scars, the presence of putrefaction near the usual sites, and depressed vitality as auxiliaries logically explained by his theory.

Direct experimental work indicates that defibrinated blood from an individual free from cancer inhibits atypical mitoses in the jelly film. As a result of a few, not as yet conclusive, experiments treating inoperable cancer cases with defibrinated blood the author thinks he may be on the track of a cancer cure.

On the whole this is a book worth reading. The main theme is indicated by the title, but the author is full of side-trip researches regarding cell activities. He proves that blood platelets are living cells endowed with

very active amoeboid movements. He thinks that the lobes of polynuclear white cells are the centrosomes of dividing cells. As he deals with real live cells and handles the subject in a live way, one wishes that a moving picture exhibit might be added to accompany the text. The work is well illustrated, however, with a number of photogravures illustrating as well as can be done by snap-shots, different phases of induced cell activities rendered to order.

CHARLES L. BENNETT.

THE CARE AND TRAINING OF CHILDREN. By Le Grand Kerr, M.D., of Brooklyn. Funk & Wagnalls Company, Publishers. 12 mo., cloth, 75c net; by mail, 82c.

Dr. Kerr's valuable article on "Nursing in Poliomyelitis" that appeared in the October (1910) issue of the Southern California Practitioner has already given us an idea of his practical style.

The little volume before us, if in the hands of every family, would greatly simplify the physician's work. Gentle Methods in Government, Moral Failings in Nervous Children, Clothing, Diet, The Bowels, Bathing, Sleep, Relations of Parent to Child, The Question of Sex, Evil Habits, are some of the topics treated of in the various chapters. Doctor, you will greatly add to your usefulness in the world if you will insist that every young couple invest seventy-five cents in this book.

OBSTETRICAL NURSING FOR NURSES AND STUDENTS. By Henry Enos Tuley, A.B., M.D., Professor of Obstetrics Medical Department University of Louisville, etc., etc. Second Edition, Revised and Rewritten, with 73 Illustrations. Price, \$1. Louisville, Ky.: John P. Morton & Co., 1910.

In reviewing this practical volume in The Southern California Practitioner in 1903 we stated that every medical student would be benefited by reading this before taking up the more exhaustive text-books. Every nurse

will gain in efficiency by giving it careful study.

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INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles, Etc. Volume IV, Twentieth Series, 1910. J. B. Lippincott Company, 1910.

The fact that this quarterly publication has completed its twentieth series is a sufficient guaranty of its value and popularity. The articles in this volume are grouped under the heads Diagnosis and Treatment, Medicine, Surgery, Neurology, Pathology, Ophthalmology, State Medicine and Postgraduate Course, and this enumeration indicates the range of subjects.

All of the articles are timely, clearly and concisely written, and many of them are by men who are acknowledged leaders in medicine and surgery. There is a wealth of illustrative plates and figures, the former in sized paper.

The article by Lewellyn F. Barker on the "Method of Examination of the Blood of Greatest Importance to the General Practitioner;" that of A. D. Bevan on Traumatic Neurosis, and that of W. S. Wadsworth on Wounds by Firearms, are of unusual interest and report quite exceptional experience.

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A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS; OR THE ACTION OF DRUGS IN HEALTH AND DISEASE. By Arthur R. Cushny, M.A., M.D., F.R.S., Professor of Pharmacology in the University of London; Examiner in the Universities of London, Manchester, Oxford and Leeds; formerly Professor of *Materia Medica* and Therapeutics in the University of Michigan. Octavo, 744 pages, with 61 engravings. Cloth, \$3.75, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

It is a great pleasure to have lying before me, the fifth edition of Cushny's Pharmacology and Therapeutics, which has been as nearly brought up to date as this progressive age will allow us to expect.

Even Erlich's "606" being considered as far as the present warrants. The action of atoxyl and similar compounds, as well as their ill-effects, due to the arsenic and phenol groups, are concisely stated. I can see no reason why "606" will not produce similar bad effects, if used in excessive doses or for too long a period; as it is likely to be used by "enthusiasts" who belong to the class of whom Voltaire said, "Doctors are men who pour medicine, of which they know little, into bodies of which they know less, for diseases of which they know nothing." The careful study of such a book as this would remove this opprobrium from the medical profession of today, to whom it is as applicable as when Voltaire wrote this exaggerated statement. Indeed, I fear it is more so, for I am informed by the principal prescription druggists that more than three-fourths of the prescriptions they are called upon to fill are for semi-proprietary compounds.

I have been told by more than one of the gentlemanly representatives of "Manufacturing Pharmacists" that they are not infrequently asked, What is it good for? What is the dose? when presenting their products.

To one who has been a student of *Materia Medica* and *Therapeutics*, in various forms, for forty years, this seems incredible, did I not know from my experience as a pharmacist, and as a teacher and examiner in *Clinical Medicine* and *Therapeutics*, as well as a consultant, it is too true.

To me it appears as essential to make a therapeutic diagnosis as it is to make a diagnosis of the pathologic conditions present, that we may prescribe for and treat our patients correctly and satisfactorily. I know of no book which will aid us to do this

as well as Cushman's *Pharmacology and Therapeutics*.

THEODORE G. DAVIS.

**MEDICAL DIAGNOSIS—A Manual for Students and Practitioners.** By Charles Lyman Greene, M.D., Professor of Medicine and Chief of the Department in the College of Medicine, University of Minnesota; Attending Physician, St. Luke's Hospital and the City and County Hospital; Chief of the Medical Clinic in the University Hospital; Member of the Association of American Physicians, the American Therapeutic Association, American Medical Association; Author of "The Medical Examination for Life Insurance and Its Associated Clinical Methods," Etc. Third Edition, Revised and in Part Rewritten with 7 Colored Plates and 248 Illustrations. 12mo; xix+725 pages. Full limp leather, round corners, gilt edges, \$3.50 net. Will be sent carriage prepaid to any address upon receipt of price. P. Blakiston's Son & Co., Publishers, 1012 Walnut Street, Philadelphia.

This book of 700 pages, is bound in flexible morocco, liberally illustrated, is just the kind of a book mechanically to pick up for ready reference. In the language of the "British Medical Journal," it "Contains an enormous amount of information, well arranged and accurate." We cannot epitomise its contents but you will be certain to prize it if you purchase a copy.

**TRANSACTIONS OF THE CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.** Vol. VIII. Published by the Congress. New Haven, Conn. 1910.

The papers which were read at this session of the Congress are each upon some phase of the general subject of artificial immunization, with the exception of the address of the president, which discussed "The Value of Optimism in Medicine."

The papers upon Artificial Immunization are by Ludwig Hektoen, Frederick P. Gay and S. P. Beebe. They are discussed by J. George Adami, Alfred Stengel and Leo Loeb.

Pages 69 to 446, inclusive, are given up to papers by representatives of the various branches of practice and laboratory specialists.

The papers and discussions of the several congresses of this association



have from the first been by men who represent the highest standards of professional and scientific achievement in North America. Hence they represent in an admirable way the progress of scientific and practical medicine and surgery in America during the last twenty-one years, and this last Congress was the peer of all which have preceded it.

The address of Dr. Trudeau should be read by every doctor of medicine who loves his profession for the sake of its traditions, its achievements and its possibilities. He defines optimism in medicine as that mixture of faith and imagination which drives its possessor from the beaten track and insures success in spite of temporary failures and hardships. He mentions as men whose lives have exemplified in the highest degree this quality of optimism in medicine, Pasteur, Grenfee and Richard Cabot, and discusses in a most delightful way the facts in their lives and work which have won for them this distinction.

In type, printing, paper and temporary binding the book is fully worthy of its contents.

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NEW WORLD SCIENCE SERIES. *Primer of Hygiene* by John W. Ritchie, Professor of Biology, College of William and Mary, Virginia, and Joseph S. Caldwell, Professor of Biology, George Peabody College for Teachers, Tennessee. Illustrated by Karl Hassmann and Hermann Heyer. Yonkers-on-Hudson, New York World Book Company. 1910.

Prof. Ritchie has a peculiar faculty for preparing works along these lines for children. His *Physiology* and *Primer of Sanitation* are both excellent and this work before us, which sells for 40c, should be a text-book in every primary grade school. The illustrations are satisfactory and the text is very plain and readily comprehended.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the Use of Students and Practitioners. By J. Nevins Hyde, A.M., M.D., Professor of Dermatology and Venereal Diseases in the University of Chicago, Medical Department (Rush Medical College). New (8th) Edition, Thoroughly Revised and Much Enlarged. In one very handsome Octavo Volume of about 1137 pages, with 223 Engravings, and 58 full page plates, in colors and monochrome. Cloth, \$5 net; Leather, \$6 net. Lea & Febiger, Philadelphia and New York. 1909.

The teaching of the usual text book upon skin diseases lacks certainty in its advice, so that it is no wonder that the average physician believes that he is right in using arsenic, tar and sulphur for any rash or eruption upon the skin, and what does not disappear while they are being used, he expects to cure with mercury and iodide of potassium. From the standpoint of clearness of description and accuracy of knowledge of the origin, progress and curability of skin diseases contained therein, it is a pleasure to have reviewed this book. In every chapter we are told what are the general principles of the therapeutics of the disease under consideration and why, and we are told what special remedies the author favors, and the grade of their usefulness as they appear to him, and I am happy to say that but very few diseases are dismissed after their description, with the statement that there is no chance of their cure or betterment, and it is these qualities which make of this a useful book to any medical man who may purchase it.

Dr. Hyde was not only the trained teacher of Dermatology, but he was an extraordinarily well prepared scientist, and so it happens that he has made a work that is thoroughly appreciated by the skilled dermatologist. The illustrations which are rich, varied and apt, are mainly from photographs procured from negatives taken from his own collection, accumulated from many years of strenuous hospital service and private practice, and

in a few instances where he had not the type desired, he has been happy in having friends who furnished them to him.

Dr. Hyde has devoted much of his life to original research in the pathology and treatment of diseased conditions of the skin, and the additions to our knowledge through his efforts, have been of untold wealth. But it is specially as a teacher that he has excelled, and the great power of his book is as a secure reference and guide to those who always must treat the great mass of the sick—the beginner, and those of little knowledge.

Every one knows that urticaria is one of the most fiendish troubles to have, and one of the most trying to treat, and as a sample of the handy suggestions with which the book is filled, the following which occurs on page 166, may be taken: One of the most effective and trustworthy of local applications in severe urticaria is a starch solution. The starch is first mixed with cold water, and then boiled until the solution is of the consistency of thin mucilage. To each pint of this 4 grammes of zinc oxide and 8 grammes of glycerine are added before ebullition is completed. When cooled and applied to the surface this solution often gives prompt relief. The same is true of a thin solution of boiled oatmeal.

The chapter on Eczema is particularly interesting and instructive—on page 193 he directs attention to the fact that some obscure forms of eczema are due to the toxins of micro-organisms. The description of its pathology is the clearest I have ever read, and its therapeutics is condensed in the following sentence: "A comparatively small number of remedies skilfully handled, will suffice in all but rare cases. Protection and reduction

of local congestion in acute, and stimulation of circulation in chronic cases. An inflamed skin needs rest and protection. A remedy that induces comfort and brings relief will usually do good." The author gives the following formula as a type of useful lotion in acute eczema:

Carbolic Acid, 2; Zinc Oxide, 4; Glycerine, 8; Liquor Calcis, 240.

For a bland dusting powder: Acid Boric, 8; Zinc Sterate, 8; Talcum, 16; Oil Bitter Almonds sufficient to scent.

And as a type of soothing and protective ointment—Bismuth Suboxide, 4; Vaseline and Olive Oil, aa 30; White Wax, 12; Ol. Rose, q.e.: and he further states that it is well to remember that oily preparations used to remove crusts and secretions, if combined with equal parts of lime water, are more soothing. Excellent lotions for soothing effects are made by adding 4 to 8 grms. of soda bicarbonate or soda baborate to a litre of thin oatmeal gruel or marshmallow decoction.

In the treatment of infectious diseases of microbial origin such as boils, carbuncles and erysipelas, he has overlooked the wonderful results often obtained from the use of vaccines.

Herpes Zoster is a serious disease for the patient, in the hands of dirty and meddlesome medical men. Hyde says truly, "The purpose of local treatment of Herpes Zoster is to protect the vesicles from rupture and infection and relieve the pain."

Eruptive fevers are given more attention than is usual in a book upon diseases of the skin, and the article on smallpox is particularly fine, and the illustrations are beautiful examples of what may be done with the camera in picturing diseases.

In the chapter on keloid, he states that most satisfactory treatment for keloid and hyperaemic scars, is found

in Radio-therapy, which is also our experience.

In these days when the beauty doctor undertakes so much in her quest for the dollars of women dissatisfied with their defective skin of advancing years, paraffine injections are often used to cushion out the curves. The chapter on Paraffine Prosthesis will be found interesting to those who venture upon this path.

The chapter on syphilis contains all the latest information as to the cause, detection and treatment of lues, excepting as to the special salts of arsenic, atoxyl and cacodylate of soda, which have been used by some clinicians with much benefit for several years, and which he evidently had not tried, as adjuncts to mercury. No mention is made of the remedy "606", or Ehrlich Hata, which had not been reported upon at the time the book was written.

Under the head of "New Growths" the chapter upon Mycosis Fungoides is extremely interesting to the trained dermatologist, both for description of the disease and for the therapeutic effort put forth by Hyde, who had much experience in the treatment of this curious and rare malady.

Parasitic diseases of the skin are beautifully illustrated, and for description and treatment, practically handled.

The article on Blastomycosis is classical; there is a short one on Pellagra with good illustrations, and a short but good description of the various tropical diseases of the skin, including leprosy.

GRANVILLE MacGOWAN.

Rhinology, Chicago Post-Graduate Medical School. Chas. L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vols. VII, VIII and IX.

Volume VII. includes Pediatrics and Orthopedic Surgery, the former by Isaac A. Abt, of Northwestern University Medical School; the latter by John Ridlon, professor of Orthopedic Surgery in the Rush Medical College.

Abt discusses the pediatrics in diseases in the newborn; diseases of dietetics; diseases of nutrition; infectious diseases; diseases of the gastro-intestinal system; of the respiratory system and diseases of the genito-urinary tract, ending with a chapter on diseases of the nervous system.

On page 28, in speaking of Prophylaxis of Scarlet Fever with Streptococcus Vaccine, he says that "it is claimed that after three doses of the vaccine, and usually after two, a complete immunity is established against scarlet fever. The duration of the immunity is thus far a matter of speculation. It is thought by the closest observers that the immunity lasts at least one and one-half years. The reports of the use of this vaccine in Russian villages during epidemics seem to show that one injection of the vaccine greatly reduces the liability to the disease; children that receive two injections were very rarely attacked and there were no cases among those who had had three injections, except in one child who was vaccinated during the inoculation period of the disease."

He goes on to say, "From the reports of these Russian physicians where the number of cases vaccinated runs into the hundreds it seems evident that the streptococcic vaccines, used as advocated by Gabritschewsky, have some influence in controlling scarlet fever. Their use, with proper care, is attended by no harmful re-



sults. They should be given a wider application in this country to prove or disprove the contentions of the Russian physicians.

Ridlon's review of *Orthopedic Surgery* is intensely interesting.

In regard to *Infantile Paralysis*, in a historical sketch he says that Medin, of Stockholm, in 1887 first emphasized the epidemic character of the disease. Shortly afterward came reports of epidemics in Norway, Italy and France. An epidemic affecting 1000 persons occurred in Sweden in 1905; and in 1909 one of 436 cases, of which 66 were fatal, occurred in Westphalia."

The discussion of this subject is particularly opportune at the present time, when we are having epidemics of *Infantile Paralysis* in various parts of the United States.

Volume IX.—On *Skin and Venereal Diseases and Miscellaneous Topics*, by Baum & Moyer.

On page 108 attention is called to the fact that Caan reports four cases of *Hodgkins Disease* without previous history of syphilis which gave Wasserman reactions. This suggests two possibilities as to *Hodgkins' Disease*. On one hand, it may be a late manifestation of hereditary or of acquired syphilis; on the other hand, since the complement fixation reaction is not absolutely specific for syphilis, but is present in relapsing fever and sleeping-sickness, caused by organisms closely related to the *Treponema*, possibly the Wasserman reaction in *Hodgkins' Disease* indicates that this affection is produced by organisms closely related to the *Treponema* or *Trypanosomes*.

Under *Miscellaneous Topics*, on page 196, occurs a few prescriptions used by

#### CHINESE PHYSICIANS,

and is of special interest to us in Los

Angeles, where the work of the wily Chinese is so much in evidence.

For a tonic he quotes, extract of bears' jaws and nails. Tigers' bones made into pills. Shavings from stag's horns.

The reason for administration of this would be: Bears are very strong, and the jaws and nails fierce and strong. Tiger's bones represent the strength of the animal. Stag's horns are also helpful. The patient needs strength.

To reduce fever: Powdered moths mixed with glue. Rust obtained from old coffin nails. Extracts of insects, especially cockroaches.

To expel wind: Extracts from the feet of monkeys and bats, asbestos, cuttle-fish bone and bird nests.

The reviewer could go Dr. Moyer one better, and report pills made from the afterbirth in obstetrical cases as especially beneficial when mixed with pulverized feces.

How fortunate that some of our "best citizens" do not realize what they are taking when they resort to the charm of the "Heathen Chinese." And still many patients will recover in spite of medicine, especially when they are suffering from an imaginary disease and can pin their faith very solidly "to the practitioner" or a Chinaman.

Volume VIII. on *Therapeutics, Preventive Medicine and Climatology* is by Butler, Favill and Bridge.

The high standing of the respective authors is sufficient to guarantee the character of the work.

Butler under the *Treatment of acute Pneumonia by Inoculation* sums up the practical conclusions as follows:

1. Successful inoculation for pneumonia is possible.
2. Inoculation does no harm.

3. A vaccine from one or a number of virulent strains should be used.

4. It should be introduced as early as possible.

5. The estimation of the opsonic index is not necessary.

6. The observation of the temperature and physical signs in pneumonia is a sufficient guide in gauging the repetition of the dose.

Favill, in speaking of Typhoid Fever, says:

1st.—Typhoid Fever epidemics are most commonly due to contamination by a series of bacilli carriers, and are rarely caused by contaminated water.

2nd.—Whatever the source of typhoid fever, whether from the water or by means of bacilli carriers, in order that the swallowed bacilli may bring about the typhoid fever they must be absorbed soon after their evacuation from the patient's intestine.

In speaking of Plague, after mentioning at some length the work of W. C. Rucker, he says: "The work which is now going on is directed at the eradication of a permanent focus for plague, and it is felt that the successful completion of this undertaking will rid America of a slumbering volcano of plague, liable to eruption and great devastation at any time. This is a departure into a new field of sanitation and may be considered an advance in preventive medicine."

Under Climatology, on page 333, occurs the following paragraph by the editors: "The written matter on Climatology is becoming very small in amount, as is to be expected. Almost all climates have been fully exploited and reported on in these publications, and time enough has not elapsed for further observations to be made either in new lands or old. A new phase of the subject appears in Tropical Medi-

cine, which bids fair to become a field of great interest and importance. The exhibition of the matter of climate during the past few years has been of great help in educating the profession and the public in the true value of climate, and, it is to be hoped, destroyed the fetish of climate, the worship of which, and the hopeless search for a cure-all in some quarter of the globe, has caused much suffering, many deaths and great disappointments."

Some little attention is given to the climate of the Northwestern States of North America.

In speaking of the coast section of the Northwest, it is stated that "the coast section is useful for such cases as require a moist climate, some asthmatics being greatly benefited."

This reminds the reviewer that in 1903 while in Berlin he was much interested by overhearing a conversation in which a very intelligent gentleman made the statement that he thought Seattle, Wash., had the best climate in the world. This was of so much interest that the reviewer later in the evening engaged the gentleman in conversation, and asked him why he thought Seattle was the best climate of which he knew. It was rather interesting to find that his basis for this belief was because Seattle was the only place he had found in the whole world where he could live without suffering the tortures of asthma. Of course under the circumstances, his opinion could not be questioned.

Dr. Norman Bridge has been most ably assisted by Dr. Edith J. Claypole. While the chapter is rather short, it contains such a fund of information that it is exceedingly interesting. Near the close of the chapter occurs the following paragraph: "In the last ten years some new diseases have been discovered, which open the field

for further conquest. The trypanosomes and the dreaded sleeping sickness, involving some million of square miles, have been attacked vigorously with good effect.

#### PLAGUE

has been the most dreaded scourge throughout history. Unnoticed for years, it began in 1894 at Hong Kong, appeared in 1906 in India and has reached 52 countries in every part of the world. In India there has been a constant annual increase. Until now there have been between 6,000,000 and 7,000,000 deaths in all. The disease has shown extraordinary tenacity in the face of vigorous measures. Although virulence of the disease is appalling, there is no reason to doubt the efficiency of the machinery that is keeping it in check throughout the world."

This statement is particularly interesting, especially to us of the Pacific Coast, when taken in connection with the beautiful and heroic work done by Rupert Blue and W. C. Rucker in California. It is doubtful, indeed, whether many will ever realize the beneficence of the work that has been done here, but it certainly brings the matter home with emphasis when it is noted that this scourge has caused over 6,000,000 deaths in one country alone within the past few years, and that here, in our own land, we had planted the infection, which without scientific work of the highest type, would doubtless have pursued very much the same course that it has taken in India. Thanks to the Federal, State and Municipal authorities, and still greater thanks to Rupert Blue, W. C. Rucker and their associates. Theirs is that type of altruistic work which asks for no reward, except the satisfaction of work well done.

While surrounded with semi-religious cults and abortive efforts to find some shorter road to medical art, let us all, as members of the regular medical profession, keep constantly in mind what medical science in its glory of the present day is doing for humanity.

Please note that the present volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete for the year prior to its publication on the subject of which it treats. Price of each volume \$1.25. Price of the series of ten volumes, \$10.00.

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A MANUAL OF PERSONAL HYGIENE. Proper Living upon a Physiologic Basis. By Eminent Specialists. Edited by Walter L. Pyle, M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Fourth Revised Edition. 12mo of 472 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1910. Cloth, \$1.50 net.

Public hygiene may be enforced, but personal and domestic hygiene must be taught. The former editions were worthy of high praise, but this—the fourth—has added an illustrated system of Home-Gymnastics, a chapter on Domestic Hygiene, an appendix containing the simpler methods of Hydrotherapy, Thermotherapy and Mechanotherapy, and a section on First Aid in Medical and Surgical Accidents and Emergencies. There is also a concise glossary of medical terms for the benefit of the non-medical reader. With Christian Science teaching that sanitation is unnecessary, that diet is unnecessary, and that what we have heretofore considered as common-sense is unnecessary, it is very important to place such books as this in the home. Such literature is the effective foe of preventable disease.



## MISCELLANEOUS

### 10,000 PHYSICIANS WILL MEET IN LOS ANGELES.

**Dr. W. Jarvis Barlow Enthusiastic  
Over American Medical Assn.  
Convention.**

Dr. W. Jarvis Barlow, dean of the Los Angeles College of Medicine of the University of California, has just returned from an eastern trip, during which he visited Chicago, New York, Atlanta, Augusta, Ga., and New Orleans.

Dr. Barlow says in all of these cities he was especially pleased at the interest the physicians evinced in the Los Angeles meeting of the American Medical Association. Time and again prominent practitioners said that they were going to make the California trip and attend that meeting.

Dr. John B. Murphy of Chicago, the president of the A. M. A., has already made several visits to Los Angeles, as also has Dr. E. E. Montgomery, a Philadelphia surgeon, who is vice-president. Dr. Barlow named several of the most prominent medical men in New York city who have never been to Los Angeles who have already made their arrangements to attend this meeting.

It is confidently believed by those who are in position to judge that there will be at least 15,000 to take advantage of the opportunity this meeting will give—10,000 physicians and 5000 members of their families.

The Journal of the American Medical Association, which is published in Chicago, says in an editorial in its issue of December 10:

"As we look forward to the next annual session of the American Medical Association, it is a pleasure to note the activity of the committee on arrangements. The chairman, Dr. H. Bert Ellis of Los Angeles, has gathered

about him a well organized committee of the active men of Los Angeles, who are laying plans to show the United States what Southern California hospitality means. They call attention to the fact that Los Angeles has several of the finest hotels, in the world, as well as many mountain and seaside resorts, flower-laden orange groves, beautiful flower gardens and parks.

"One of the complimentary trips will be to some of the orange groves, where members will be allowed to gather the fruit from the trees. Another trip will be to the famous Catalina island, twenty-five miles at sea, and will form an auspicious introduction to the Pacific ocean. The ladies of Los Angeles also are planning to do their part in making the time pleasant for the ladies who accompany the members of the Association. It is not too early to lay plans for the annual outing of 1911, so that it may be taken in connection with the Association's scientific meeting, which is expected to be of the usual high quality. Dr. Ellis will be glad to answer any questions relative to local affairs."—Los Angeles Daily Herald, December 14, 1910.

### DECLINE OF VACCINATION.

The vaccination statistics of London are most discouraging and afford ample evidence that in the metropolis of Great Britain vaccination is steadily falling into disrepute. The vaccination figures for London are not available for the year 1908, but are given for 1906 and 1907. From a study of these it is obvious that the materials for a severe epidemic of smallpox are being accumulated. Out of 126,475 children born in 1906 only 68.1 per cent., and out of 122,831 children born in 1907 only 65.9 per cent. are known to have been successfully vaccinated;

while the "conscientious objections" which amounted to 1.5 per cent. of the births in the former year rose to 3.1 per cent. in the latter. "Moreover," remarks the writer in the Times, "these do not nearly account for all the children born, and there must be a large unvaccinated residue, and it is needless to state that such a residue among careless parents is a constant source of danger to the rest of the population. It might be useful to obtain the figures regarding vaccination in New York and compare them with those of London. Now that by universal vaccination in civilized countries smallpox has been robbed of all its terrors disbelief in its efficacy has developed among the unthinking. However, the proofs of the value of vaccination are so abundant even at the present time that an intelligent perusal of the history of what has been accomplished in this line in Porto Rico and the Philippines should convince the most skeptical. Unfortunately, the anti-vaccinationist is not endowed by nature with the ability to study any medical records of vaccination intelligently.

#### ANALYSIS OF SEVENTY-TWO CASES OF PNEUMOTHORAX.

Ayer (Boston Medical and Surgical Journal) reports seventy-two cases of pneumothorax which occurred in the Boston City Hospital during ten years, and adds to his number fifty-five cases previously reported by Dr. Morse. Of his 127 cases 69 per cent. were tuberculous. Most were young or middle-aged men and most had a recent history of less than six months' illness. The left side was most often affected. Pain and dyspnoea were by far the most common symptoms at onset. The treatment in these cases was for the most part essentially that of the fluid present; the prognosis was anything but encouraging. Pneumothorax

seems most frequently to occur on the side of a rapidly advancing process where adhesions are either absent or friable. The other lung and other parts of the body are apt to show long-standing tuberculosis. It may follow a long-standing empyema (of three months or more duration), by establishing a pleuropulmonic fistula or other means as yet not understood. The onset in these cases does not usually show the acute symptoms so characteristic of the tuberculous cases, but may even cause temporary relief. Operative treatment in these cases is frequently permanently successful. In traumatic cases we see fluid developing rapidly; the air does not, as a rule, last long and is probably of no serious import. Artificial pneumothorax occurred in nineteen per cent. Though agreeing with some other series, this is altogether too high a percentage. By use of a simpler and safer instrument than that commonly employed, we feel that artificial pneumothorax, although its occurrence is in many cases probably of no ill consequence, could be largely avoided. X-ray examination has frequently made difficult cases clear, rendered diagnoses more exact, qualified prognosis, and explained the effect of treatment. Since this form of examination has come into more constant use in this hospital, pneumothorax has been more frequently diagnosed.

#### CALIFORNIA HOSPITAL ALUMNAE NOTES.

Miss Gertrude Hart, who has made such an excellent head nurse in the maternity department of the California Hospital, has resigned and will take up private nursing.

Miss Anna A. Williamson, superintendent of nurses of the California Hospital, is delighted to see the fol-



lowing in regard to her alma mater:

**The New York Hospital.**—After long negotiations the New York Hospital, one of the oldest institutions of its kind in the United States, has announced the purchase of a block of land lying between Fifty-fourth and Fifty-fifth streets and Eleventh and Twelfth avenues, Manhattan, on which it will shortly erect a group of modern hospital buildings. The hospital is the first to locate along the Hudson River front, and has secured an almost ideal site, since only a line of piers will intervene between it and the river, while to the south the De Witt Clinton Park extends for several blocks. Plans for the building will be prepared by Messrs. McKim, Mead & White of New York. It is not likely that the new hospital will be ready for occupancy before January, 1915, and no decision as to the disposal of the old site will be made for the present. The New York Hospital dates back to the time of King George III, the first building having been erected in 1773 on the corner of Church and Worth streets. A fire destroyed the structure before it was completed, and the hospital was given a public grant of 4000 pounds sterling to enable it to continue. The Revolution then broke out, and it was not until January, 1791, that the hospital finally opened its doors for the reception of patients, the unfinished structure having been used as a barracks by British and Hessians soldiers during the war. In 1869 a new hospital was planned; the work was temporarily abandoned owing to lack of funds, but later through income derived from its real estate, the society was able to erect the present buildings on Fifteenth street, which were opened in 1877. These buildings are now being almost completely shut in by skyscrapers.

The New York Hospital Society also maintains the House of Relief on Hudson street, and the Bloomingdale Hospital, and a home for convalescents at White Plains, 60,000 to 70,000 patients being treated annually.

#### AWAY WITH THE FLIES.

Not less than 95 per cent. of the pests are bred in the stable.

All stables should have a manure bin with a door at the side and a wire screen on the top that the larva deposited in the manure before it was placed in the bin will be screened when hatched; and as flies seek light and come to the top of the bin, they can be easily killed by burning paper or some other device.

The fly has a thirst only equaled by his hunger; place a dish of poisoned water in the stable and a greater part of the flies hatched there will be killed.

Flies are nature's scavengers, fulfilling the same function that some bacteria do, but become an intolerable nuisance and danger when entering human dwellings and by contamination of food.

The presence of flies is a direct evidence of careless housekeeping and of the existence of filth in some form about the premises, and are more dangerous than the good housekeeper's terror found in bedrooms.

Remember that wherever absolute cleanliness prevails there will be no flies. Look after the garbage cans. See that they are cleaned, sprinkled with lime or kerosene oil, and closely covered.

Remove all manure from stables every three or four days, and when removed keep in a tight pit or vault, so flies cannot breed in it.

Lye, chloride of lime, or blue vitriol water, crude carbolic acid, or any kind of disinfectant may be used.

Keep flies away from the kitchen.



Keep flies out of the dining-room and away from the sick, especially from those ill with contagious diseases.

Screen all food. Apply this rule not only to food prepared at home, but to foodstuffs offered for sale, and especially fruits, salads, and all other things which do not require to be cooked.

Prevent consumptives from expectorating where flies can feed upon it.

To clear rooms of flies carbolic acid may be used as follows: Heat a shovel or any similar article and drop thereon twenty drops of carbolic acid. The vapor kills the flies.

A cheap and perfectly reliable fly poison, one which is not dangerous to human life, is bichromate of potash in solution. Dissolve one dram, which can be bought at any drug store, in two ounces of water, and add a little sugar. Put some of this solution in shallow dishes, and distribute them about the house.

Sticky fly paper, traps, and liquid poisons are among the things to use in killing flies, but the latest, cheapest, and best is a solution of formalin or formaldehyde in water. A spoonful of this liquid put into a quarter of a pine of water and exposed in the room will be enough to kill all the flies.

To quickly clear the room where there are many flies burn pyrethrum powder in the room. This stupefies the flies, when they may be swept up and burned.

If there are flies in the dining-room of your hotel, restaurant, or boarding-house, complain to the proprietor that the premises are not clean.

#### STONE IN THE URETER.

Dr. R. C. Bryan, Richmond, Va.: The size, number, and location of the stone having been accurately determined, the treatment resolves itself

into one of two methods: (1) ureteral catheterization and lavage; (2) operation. It would seem advisable in small stones, and those located in the lower segment of the ureter, to attempt by ureteral catheterization and injection to dislodge them. This will likely occur in a fair percentage of instances. It occurred in four of my eight cases. If this method fails, operation is indicated. I have done only the extra-peritoneal operation. It does not appear that the intraperitoneal or combined method offers any advantage which would justify the possibility of peritoneal infection by urine leaking from a suppurating tract. An incision starting midway between the highest point of the crest of the ilium and the eleventh rib, and running to the anterior superior spine of the ilium, thence parallel with and internal to Poupart's ligament for its outer three-fourths, has in my series given sufficient opening to explore the ureter from the kidney above to the bladder below. In those instances in which the stone is incarcerated in the intravesical segment, the incision may be carried down to the spine of the pubes, thus giving all the room desired. The ureter is cut through its long axis and the stone removed. Catgut sutures approximate the wound, and a tube is inserted to the site. In my series there was leakage in but one case for five days, the remainder giving none at the end of two days.

**A Prayer for Our Children:** Bless my children with healthful bodies, with good understandings, with the grace and gifts of Thy Spirit, with sweet dispositions and holy habits; and sanctify them throughout in their bodies, and souls, and spirits, and keep them unblamable to the coming of the Lord Jesus.

JEREMY TAYLOR, 1613-1667.

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## THERAPEUTICAL HINTS

In the therapeutic action, in the treatment of whooping cough, of Syrup Thiocol (Roche) all the desirable factors are present. It is an antiseptic to the whole respiratory tract, a sedative, and anti-catarrhal. Farna, Caute-min and Lacenay, in *Le Concours Medical* and the *Gazette des Hopitaux*, have substantiated these claims. A. Thalou, in the latter publication, states, "The attacks are reduced in severity and number, the physical condition improves, and the catarrhal symptoms disappear." Pinet, in *Le Concours Medical*, states "Thiocol considerably reduces the severity and duration of whooping cough. Its efficacy is greater than that of antipyrin, aconite, belladonna, benzoate of sodium, etc., producing neither intoler-

ance nor toxic symptoms. By its anti-catarrhal and antiseptic qualities Thiocol exerts a most favorable influence on the mucous membrane of the respiratory tract.

The method of administration recommended is Syrup Thiocol, Roche, (from 1 to 5 teaspoonfuls) three or more times a day.

**Antitoxin Reduces Diphtheria Mortality.**—According to statistics prepared by Dr. Andrew A. Cairns, chief medical inspector of the Bureau of Health, Philadelphia, it is shown that prior to 1896, the death rate from diphtheria was more than 30 per cent., but that since the use of the antitoxin became general, the death rate has never exceeded 20 per cent. In 1909, it was

13.2 per cent. and in the year just closed it was 12.93 per cent. The figures for 1910, which have just been completed, show 3804 cases of diphtheria reported with 492 deaths. In 1909, there were 2329 patients in the Municipal Hospital, of whom 243 died, a percentage of 10.43, while last year 2235 patients were taken to the city institution, where 203, or 9.08 per cent. died.—Journal A. M. A.

**Poliomyelitis: Treatment of Residual Paralysis.**—Little children are reluctant to essay movements of a partially disabled limb. When it is an arm, they let it hang and use the other; if it is a leg, they make no effort and prefer to be nursed and waited upon. Suspension in water greatly facilitates movement when the muscles are feeble. We in Washington can fully confirm the experience of the New York committee, who found out how easily the child could accomplish little movements in a bath which he was unable even to attempt when his limb was not so supported; and it is very easy for the mother or nurse to invent little play games to maintain the child's interest for an hour at a time while suspended in a warm bath. There is no danger in this so long as the water is maintained near blood-heat. The skin does not macerate, and the effect upon nutrition is most favorable. To stimulate the circulation in the limbs, they should be massaged several times a day. From this procedure one must not expect to procure regeneration of atrophied muscle and nerve. Surgeons know well that muscles supplied by a cut nerve atrophy and will not regenerate although they are massaged till doomsday.

**Galvanism.**—If, however, they are galvanized from the beginning, atrophy will not occur; for the exercise of

their contractile functions maintains the integrity of the muscle elements, and it is only galvanism which can excite contractility when the motor nerve and its endings have degenerated. If treated by galvanism from the beginning, a living muscle cell will greet each regenerated nerve-fiber which pushes to its destination. If galvanism is not used, only the envelopes of dead muscle spindles will be met with. The time for these to regenerate must then be added to the duration of every case not treated by galvanism.

**Mode of Application.**—The current should be applied only to those muscles which are paralyzed, and the negative pole should be placed over the muscle itself near its tendon of insertion, while the positive pole is attached to a large electrode applied over the abdomen or other indifferent point. It is useless to stimulate the motor point except during the first two weeks, i. e., before nerve-endings have ceased to be stimulative on account of degeneration.—Tom A. Williams, Washington, D. C.

The first hospital in the new world was established by Cortez in the City of Mexico, in 1524, a full hundred years before any similar institution was founded in the United States. So firmly were the foundations of this institution laid that the endowment continues to this day and the hospital is still in operation, presided over by a superior who receives his appointment from a direct descendant of Cortez. The funds through which the institution was endowed were obtained from the revenue of property given to Cortez by the Spanish crown for his services in making Mexico a part of the Spanish domain.—Indianapolis Medical Journal.



"theories are flexible speculations, facts are rigid realities.

In dealing with an inflammation, whatever may be the etiological theory the fact remains that you have a condition manifested by swelling and pain from infiltrated tissues, redness from arterial interference, and other cardinal symptoms indicating the application of hot moist heat, which relaxes tension and normalizes circulatory disturbances.

In the application of a hot moist dressing, professional preference has clearly emphasized the advantages and value of antiphlogistine.

Whether the inflammation be superficial, such as hand infections, boils, carbuncles, etc., or of the deeper structure as in bronchitis, tonsillitis, quinsy, pleuritis or peritoneal involvements, antiphlogistine applied thick and hot affords relief promptly."

## TREATMENT OF MENINGITIS.

In the *British Medical Journal* for Nov. 20, 1910, there is a report by J. S. Barr of some work of epoch-making importance in connection with irrigation of the cerebral ventricles and spinal subarachnoid space. His work was done in the bodies of several children, who had recently died, and in one case of purulent exudative meningitis, in coma just prior to death. Through trephined openings canulas were passed into the lateral ventricles of the brain, and by ordinary lumbar puncture into the spinal subarchoid space. The fluids used were placed in glass funnels connected with the canulas by rubber tubing. In less than one minute after the irrigation was begun fluid began to drop from the lumbar tubes.

In the moribund case of purulent meningitis more than a pint of cloudy fluid was collected from the lumbar canula in less than one hour. In this case at the time of beginning the operation the conditions were: Coma, pulse 130 and feeble, temperature 103 deg. F., respiration Cheyne-Stokes type. Following the irrigation the general conditions improved, but death occurred in 14 hours without return of consciousness. The autopsy showed very great and extensive purulent exudative meningitis at the base of the brain.

In some of the cases the fluid used was colored with carbol fuchsin. In these cases the autopsies showed the route traversed by the fluid to be lateral, third and fourth ventricles, foramen of magendia and lateral clefts into the spinal suborachnoid.

Barr's work shows conclusively that it is mechanically possible to wash out the route mentioned.

The step next in order is through experiments upon lower animals to as-

certain the tolerance of these spaces the brain, and cord to manipulation, and to antiseptic and specific fluids (sera.) In view of the progress of surgery in the last quarter century it is not at all chimerical to hope that the time is coming when the ventricles of the brain will be treated, within discovered limitations, freely, easily and successfully.

While it is premature to say that when used with sufficient promptness and thoroughness, the employment of Flexner's serum will show 90 per centum of cures, indications point strongly to that golden era. E. W.

## DIGESTIBILITY OF BLEACHED FLOUR.

The experiments of Rockwood tend to show that the gluten of bleached flour, both cooked and uncooked, digests somewhat more readily than that of unbleached flour. Bread made with yeast from bleached flour did not differ in digestibility from that made from unbleached flour. The nitrite reacting material largely or altogether disappears before the bread is removed from the oven. Boiled starch prepared from bleached and unbleached flour forms, by the action of pancreatin, reducing sugar at equal speeds. Tested with iodine there is no difference in the rapidity of starch digestion, either by pancreatin or by the salivary ferment. Diastase gives the same results.—[*Journal A.M.A.*]

**Acne.**—For soothing purposes the *Journal A. M. A.* recommends the following lotion:

Zinci oxidi.....	10 grams
Pulv. talci.....	8 grams
Glycerini.....	8 grams
Sodii biboratis.....	8 grams
Aquæ calcis.....	120 grams
Aquæ rosæ, q. s.....	240 grams
Apply externally.	







ROBERT HALL BABCOCK, A.M., M.D., Chicago,  
President Mississippi Valley Medical Association.

# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, MARCH, 1911.

No. 3

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and DR. WILLIAM A. EDWARDS.

## THE EFFECTS OF CHRONIC CHOLICYSTITIS ON THE HEART.\*

BY ROBERT H. BABCOCK, M.D., LL.D., CHICAGO.

Mr. President and Members of the Society: When your President invited me to address you I felt greatly honored, but hesitated to accept as I had no prepared paper, since, when I came to California, it was with no thought of the honor now conferred upon me. On reflection, however, I decided to give you an informal talk on the subject announced, not because of any original work done by me, but on account of the importance of the subject as I conceive it. There seems to be a feeling in some quarters at least that nothing is of value that is not based on animal or laboratory experimentation, and yet to my notion knowledge derived from clinical observation may be no less instructive and valuable.

In the Journal of the A. M. A. of June 17th, 1909, I published a paper previously read before the Association of American Physicians entitled Chronic Cholecystitis as a Cause of

Myocardial incompetence, with report of illustrative cases. Some of you may have chanced to read that paper, but even if so, I desire briefly to recapitulate them.

The cases presented were about thirteen in number, ten of which were subjected to operation. These thirteen cases (I think that was the number) were all seen because the patients presented more or less serious symptoms of cardiac disease. Some showed dilatation of the heart and murmurs indicating valvular insufficiency, and pronounced symptoms of myocardial involvement. One was a mitral stenosis and one was aortic insufficiency, both compensated until attacks of aggravated indigestion or attacks of hepatic colic broke down the myocardium. After the attack had passed it was possible to restore functional integrity to a degree. One of these patients was a woman and each

\*Address delivered before the Los Angeles County Medical Association February 3, 1911. Stenographically reported.

time she had an attack of biliary colic her heart went to pieces.

Two of the cases had been diagnosed as angina pectoris and two or three were cases of persistent and very annoying intermittence, without marked cardiac symptoms aside from the intermittence.

Of the ten cases subjected to operation, three died under the following circumstances: The first case was operated upon by a surgeon outside of Chicago. The patient went through the operation well, lived a week and then died, after stoppage of the flow of bile from the drainage tube, probably due to acute infection of the gall-bladder.

A woman of 70 who had had a moderate degree of mitral stenosis with several attacks of pain thought to be angina but really hepatic colic for a number of years was seen by me one afternoon. It was a case of cholecystitis and the condition warranted me in recommending immediate operation. Unfortunately the operation was not performed until the next day, twenty-four hours later, when peritonitis had already set in, and the woman died twenty-four hours later.

The third was a man seventy-odd years of age, who had been supposed to have angina pectoris. He had a dilated heart and certain symptoms that convinced me that the supposed attack of angina pectoris was in reality biliary colic. After the man began to improve he had another exacerbation of the cholecystitis and the heart became still more dilated, and recognizing the impossibility, in my opinion, of that man ever obtaining a restoration of myocardial adequacy so long as exposed to the liability of recurrences of acute cholecystitis, I recommended opening and draining the gall-bladder. The operation was consented

to and the man was given gas because we thought that safe. The man died of respiratory paralysis just as the operation was being completed. He died of the gas, not of the shock.

All the other cases survived the operation, no matter how serious the state of the heart at the time of operation, and most of them survived for a period of some months or a year or two, but subsequently succumbed to myocardial inadequacy. I am convinced that had the condition of the gall-bladder been recognized earlier and operation done then, the patient's life might have been saved.

Two or three cases operated on are now living and enjoying perfect health.

In addition to these cases I have, in the last eight months, seen three other cases so instructive to me that I desire briefly to present them to you this evening. Early last summer I saw a man who presented the typical picture of chronic Bright's disease. The blood pressure was about 200, there was hypertrophy of the heart, which showed signs of breaking compensation. The urinary findings were indicative of Bright's disease, although the renal findings were not so serious as the heart condition. He had been in the hands of a competent internist, who some months previously had pulled him through what was an almost hopeless state of cardiac incompetence, apparently. The physician stated that this patient would, every once in awhile, develop a hypertensive attack, that appeared to be an auto-intoxication, with marked increase of blood pressure and serious threatening of cardiac breakdown. Two nights before I saw the man he had developed an attack of acute indigestion, as he thought, followed by considerable bronchitis, and when I saw him



in my office he had a temperature of about 101 deg. with high blood pressure; if I remember correctly, about 200. There was dyspnoea and marked bronchitis at the base of both lungs. I was greatly interested in the statement that his present condition was due to an attack of indigestion two nights before, so I went over the abdomen with especial care and detected an easily palpable and tender liver; but the outline of the right lobe was convex downward, not that of a simple passive congestion. I made a diagnosis of chronic cholecystitis with an acute exacerbation of an old infection, and suggested operation later, if he would consent to it. I saw the man a week later and his condition had grown rather worse. The symptoms of acute infection had not abated and the heart was in a still more alarming state than when seen in my office, so the patient consented to an operation. An operation was a serious matter under such circumstances, but I believed the man would survive the operation if done quickly. The operation was performed with, to my mind, faulty technique. The man survived the operation with but little shock, but developed symptoms within the next twenty-four hours that were very puzzling. I never saw the man again, but the symptoms, as related to me, indicated either a peritonitis or a deep-seated pneumonia. At all events, the man died at the end of a week. The gall-bladder was large, thick, white and filled with tarry bile. I think there were some stones, but I am not sure of that. I became perfectly satisfied that the so-called hypertensive attacks which had been characterized by a marked increase of blood pressure were acute exacerbations of an old-standing cholecystitis.

The next case is still more instructive. In August, 1910, a man was put in my charge who was about 54 years old, a buyer and seller of cattle in the stockyards. He gave a history of having been perfectly well except for attacks of indigestion, until about six months prior to the time I saw him. Then he had quite rapidly developed symptoms of myocardial inadequacy and marked congestion of the liver. From that time until the time of my examination his condition had been steadily growing worse and, I am surprised to say, a diagnosis of cirrhosis of the liver had been made, with secondary cardiac failure. When I saw the man he was orthopnoeic with a right-sided hydrothorax. The pulse was intermittent, the heart dilated, and there was a systolic murmur which, with absence of signs of tricuspid incompetence, seemed to indicate mitral insufficiency. The blood pressure, as I remember it, was about 165, the urine of low specific gravity, showing a few casts and trace of albumin. The liver was easily palpable and tender, but the thing that struck me was that the outline of the liver was not that of a simple passive congestion. There was the downward prolongation of the liver known as Riedel's lobe over the area of the gall-bladder, and the enlargement was mainly in the right lobe of the liver, and there was some tenderness. I was simply suspicious, in the first day or two, of the gall-bladder. I could not understand why the myocardium should have broken down so suddenly without any unusual effort. The hydrothorax was drawn off to relieve the heart, morphine was given to enable him to sleep, and he was put upon cathartics and digitalis. The man was very comfortable at the end of a week and the pulse less intermit-

tent. This was on Monday; on Tuesday the man was very much worse, the heart greatly dilated, the arrhythmia was marked and he was so much worse that I asked what on earth had done it. He said he had had an attack of acute indigestion with pain so that he had had a hot-water bag applied over the stomach. I found Reidel's lobe was much more apparent, there was a distinct rise in temperature and the leucocyte count was about 9000 or 10,000. I said to him: "I believe you have a chronic infection of the gall-bladder. I don't know that you will ever be well, but I am certain that so long as you have these attacks to pull you down that you will never get well." He replied: "What shall I do?" I said: "Have the gall-bladder opened and drained." It took lots of courage to say that. He said: "I want to get well. I have been told that I have only six weeks to live and I am willing to have an operation." I said that the operation must be done quickly, under ether, and with as little shock as possible. The next day the operation was done and was completed within ten minutes. Today that man is attending to business in the stockyards, riding horseback all day and he says he never felt better in his life. There is still some hypertrophy of left ventricle, a faint systolic murmur and the pulse is occasionally slightly intermittent. Following the operation I gave him a course of Nauheim baths because I recognized that it was necessary to strengthen the myocardium.

The third case I wish to mention is that of a man in the late fifties, who came to me because of attacks of tachycardia, which began first last winter following an attack of fever and pain. The attack was then thought to be pleurisy, but I am quite

sure it was not that. His pulse during the tachycardia was 120 to 130 and very irregular, but at other times of normal rate and rhythm. The man stated that these attacks occurred regularly every eighth day. They would come on almost at a given hour. He declared that when the day came, at ten o'clock in the morning his pulse would "go off." The attacks lasted twenty-four hours and then the man would be perfectly well and his pulse perfectly regular. I recognized that the only hope of arresting these attacks was in toning up the heart muscle and he was put to bed and given a course of Nauheim baths and digitalis. His condition improved and the attacks became less severe and less prolonged. Then one morning the nurse informed me that his stomach had troubled him and that afternoon his temperature was 100 deg. The heart showed some increased rapidity. The liver could be palpated more distinctly than before, and displayed the curving downward border and was slightly tender. The leucocyte count was about 8700, if I remember correctly. The liver remained palpable, though the tenderness disappeared, but the stomach was still troublesome and he vomited on very slight occasion. After two or three weeks more he was losing ground constantly and the leucocyte count had gone up to 10,000 and I expressed the opinion that he had a chronic cholecystitis and that the exacerbations were due to an old infection. I had a surgeon see him. The surgeon outlined the border of the liver with a pencil and when I came in he asked me to palpate and outline the border of the liver and I did so and followed his pencil marks exactly. He was operated upon and the gall-bladder was found to be large,

white and filled with sticky, tarry bile. This was done about two weeks before I came away and the gall-bladder was still draining. He had gone home and had had no more attacks of tachycardia and was feeling well, but what the ultimate result will be I cannot tell.

I have outlined these cases because they illustrate just what I want to impress you with: that there are cases in which disease of the gall-bladder produces serious, if not very alarming effects upon the heart muscle. The points I would like to speak of, which help me in recognizing these cases are these:

First, in persons past forty years of age, the extreme frequency of gall-bladder disease. You know statistics have shown that one in every ten has chronic infection of the gall-bladder, and one in every thirteen has gall-stones; I refer to persons past middle life.

Secondly, symptoms which, when properly studied, to my mind point to an involvement of the gall-bladder rather than to a condition of the stomach. These people invariably declare they have attacks of acute indigestion. Many of them have had attacks diagnosed as acute gastritis or acute indigestion, which, when analyzed, are found to have been attended with more or less pain, fever, and more or less tenderness over the liver.

Now, I believe that when an adult or an elderly person complains of attacks of acute indigestion and has fever, that that is not an attack of acute indigestion and is not a stomach attack. In a child an attack of acute gastric catarrh may be accompanied by fever and, perhaps, some pain, but when an elderly person has these symptoms, I believe they point to an affection of some other structure

than the stomach, and I am always suspicious of the gall-bladder.

If, then, in these cases we find this peculiar outline of the liver (Reidel's lobe) with a very moderate leucocytosis, even if there be no tenderness, I feel pretty sure of my diagnosis. When these cases are seen frequently and the liver is examined every time the patient is seen, and especially after an attack of so-called indigestion, almost invariably some tenderness will be found in the region of the gall-bladder, if not in the liver throughout.

The third point is that the symptomatology of cholecystitis may be extremely vague or lacking. There may be absolutely no symptoms further than indigestion characterized by eructations of gas, and that is a very important symptom, eructations of gas which do not come on immediately after the taking of food, but an hour or two hours after a meal, the eructations being usually odorless and tasteless. Then, these attacks of indigestion do not occur, as a rule, soon after the taking of food, but they occur at a time when the stomach is expected to be empty, i. e., three or four hours after a meal.

Another point: The symptoms of indigestion, cardiac disturbance, intermittence, or whatever it is, may come on in the early hours of the morning. The patient falls asleep and awakens with an attack of indigestion, belches gas and notices the irregular heart action, which may be very disturbing indeed.

As the last symptom, let me speak of pain. Pain is a very variable symptom and I want to say that hepatic colic does not by any means always manifest itself in the way it is pictured in the books. I have seen cases where it was an infracardiac



pain, a dull, gnawing pain, lasting for hours, or a day or so. Again the pain has radiated into the chest from the epigastrium, with such feeble action of the heart that the pain was thought to be angina pectoris. I know of a doctor whose pain used to radiate down into the inguinal region and was thought to be due to a renal calculus. Commonly it is located in the epigastrium. It may be slight or of extreme intensity, and in many cases pain is not complained of at all.

Now, as to the physical findings. Whenever I see a case of cardiac insufficiency from whatever cause, I always pay close attention to the liver. Whenever I find the right lobe showing enlargement I pay particular attention to its outline. In most of these cases where there is tenderness, there is tension of the right rectus and if one palpates with firmness the tension becomes more marked. I have not a specially delicate touch. The surgeon who has helped me out in so many of these cases has a far more sensitive touch than I have, but I find in nearly all these cases that when I support the right hypochondrium with the left hand and I produce just a slight pressure with the right hand, allowing the patient to take a breath of moderate depth, I can nearly always feel the border of the liver rise over the side of my hand. Then I palpate at the outer border of the rectus, and at the side of the rectus can feel the convex border of the liver. The left lobe is not so plainly palpable as the right. In some cases quick ballotment of Reidel's lobe will give the under hand the sensation of a soft body coming against it. With these symptoms and with tenderness I feel certain of my diagnosis.

A corroborative sign is Ewald's area of cutaneous hyperesthesia. If

one runs his finger or key lightly down the patient's right back and there is felt a sticking or pricking sensation opposite the 9th or 10th torsal spine, the sign is present. It may extend out two or three inches. Many patients have this cutaneous hyperesthesia and that is a very strongly corroborative sign of chronic cholecystitis.

The points I wish to make are these: First, gall-bladder disease is more frequent than is generally recognized. Its effects on the heart or circulatory system may be much more pronounced than we suspect, and hence may be a cause of myocardial breakdown.

I believe the heart is an organ which, although diseased, will perform its functions with tolerable, perhaps remarkable faithfulness, until it is subjected to some additional strain, not a physical or mental strain merely, but such as an aggravated attack of indigestion, a chronic appendicitis or cholecystitis. It only requires that extra strain to break down the myocardium. Of course I recognize that when the bundle of Hiss is involved, the heart will break down, no matter how well it is guarded, but we all see old people with markedly diseased hearts and it is surprising how well they get along until they have some attack of illness, and then the heart becomes incompetent.

These were all cases in which the heart muscle was not structurally intact. It was functionally but not structurally intact, and it required just this condition to break down the myocardium. If this condition is recognized early and if the physician has the nerve to recommend immediate operation, and if the operation is done in a proper manner (and this is extremely important), the patient is

thus given a chance to recover, provided the condition has not lasted too long.

I shall be very glad to have the gentlemen ask any questions and will be glad to answer them if possible.

#### DISCUSSION.

The President, Dr. Barlow, opened the discussion with:—We have been helped so much by your volumes on diseases of the chest and circulatory system, and we have marveled at times at the work accomplished by you under such a disadvantage. When reading this paper a year ago I felt that the treatment was rather radical, because there were so many deaths. I should be glad if you will tell us whether that was due to prolonged operation or whether the operations were not done in the way you would have them done? I ask this question because the results now are so much better.

Dr. Babcock:—Of the three cases that died, one died of peritonitis, one of gas asphyxia and one of reinfection of the gall-bladder. Not one died directly of the shock of the operation. Of the other cases not living, the hearts were in such a forlorn state that I recognized that it was likely that nothing would restore the adequacy of the myocardium. The case was put plainly to the patients that as long as the complication existed there was absolutely no chance of their getting well, and in all of those cases the patients' life was prolonged from several months to one or two years. In all of the cases the patients were able to get up and around and felt that they were going to get better, but the myocardium had suffered too great damage and all the doctors could do for them could not save them. The operation had not been done early enough. The patient who died last

June died, I am certain, as a result of faulty technique. I think that in these cases there should be a small incision, the gall-bladder brought up and stitched to the edge of the wound and the drainage tube inserted and stitched to the edge. No extra shock should be produced by unnecessary manipulation and that drainage should be the one thing attempted. The tube is left in situ and the gall-bladder allowed to drain just as long as the bile does not come away absolutely clear and normal. In this particular case the gall-bladder was not stitched to the abdominal wound. The tube was stitched to the edge of the gall-bladder and the gall-bladder was dropped back into the abdomen, and I believe there was an infection from leakage around the edge of the gall-bladder wound.

Dr. George L. Cole:—There are a few points that are especially impressed upon my mind. One is the beautiful lesson that has been given us by Dr. Babcock of the carefulness and the interest of studying the cases clinically. This, I know by a recent talk with Dr. Babcock, is a point on which he has felt as I have, that at the present time we are rather running to laboratory methods and neglecting careful clinical methods. This talk he has given us tonight has impressed upon me the necessity, not of neglecting laboratory methods, but of depending largely upon the symptoms as we see them. I do not wish to question the necessity for surgery, nor do I believe there is any method of getting away from the necessity for surgical procedure, but I do wish to ask one question. In many cases of chronic cholecystitis with acute exacerbations, in which the cardiac muscle is affected, what is the effect on these patients of large doses of



calomel? At present we are not using cholagogues to anything like the extent they were employed in former years. Formerly all patients were given large doses of calomel and many were salivated, and we have gotten away from calomel. But I have sometimes wondered if it might not be beneficial in small doses, as we give calomel at the present time, i. e., a tenth of a grain every hour, followed by a saline. Our forefathers gave five to twenty grains of calomel and the patient got over the effects of the calomel in a few days and then he was given another dose, and some of those patients got better. Now, I am not pleading for calomel, but I would like to ask Dr. Babcock the effect of calomel in these cases.

Dr. Babcock:—I think there are few men in the profession who use cathartics as much as I do. I have only dwelt upon those cases in which there was an obvious influence upon the heart. I always prescribe something of this kind, and my favorite is phosphate of soda. My friend the surgeon has told me that he has seen a patient with all the symptoms of gall-bladder disease relieved in this way. A half ounce of the phosphate of soda is put in a quart of water, the patient drinking a little of it throughout the day. I have given it in that way, but I usually have the patient take enough in the morning to produce an easy stool.

A great aid in the palpation of the liver has been the administration of the old English black draught, four ounces of the compound infusion of senna. Whenever I see a patient in whom I cannot palpate the liver satisfactorily I have ordered this dose and the next day I could outline the liver with certainty. So I am in favor of suitable cathartics.

If you will pardon a personal remark, I will say that I am myself a sufferer from chronic cholecystitis. Recently I have had several attacks of pain and every one of them followed the administration of calomel. I will admit that if I take a dose of calomel tonight that tomorrow I will feel like a fighting cock, but the next day I will have an attack of pain until I have to use morphine for relief. Such an attack followed the use last fall of Parke Davis's cholilith pills. I tried the pills because I thought they might make the old thing work, you know, and I had one of my worst attacks. It seems to me that Kehr is right when he says that the pain of gall-bladder disease is not, in most instances, from the gall-stones, but from the distention of the gall-bladder, and I have suspected that when I do take calomel there is an increased flow of bile into the reservoir and that the gall-bladder cannot empty itself and then I have an attack of pain. The day following a hypodermic of morphine and atropine my liver is less palpable and the gall-bladder is far less tender. That is the sequence of events in my particular case.

The President, Dr. Barlow:—Do you intend to be operated upon?

Dr. Babcock:—Yes, if I live to reach Chicago I intend to have my gall-bladder drained.

Dr. Wm. Duffield:—I would ask what, if any, influence chronic gall-bladder disease finally exerts upon an otherwise healthy circulatory apparatus?

Dr. Babcock:—That is a very important question and one that I am unable to adequately answer, for there are no experiments to help us in that, but I would like to mention one case that I referred to in my



chapter on chronic myocarditis in Dr. Osler's "Modern System of Medicine." This lady of 33 was operated on several years ago for gall-stones. Heart and blood pressure were carefully examined and the heart was not enlarged, there were no murmurs, and no symptoms of myocardial inadequacy, so the operation was done. Not many hours after the operation the pulse began to rise and the patient died of cardiac failure. Prof. Zeit, Pathologist of the Northwestern Medical School, made a most careful study of that case. The coronary arteries were found markedly sclerosed and the heart muscle was in a state of brown atrophy. There was absolutely no evidence of syphilis and the only history that woman ever gave was of acute attacks of gall-stone colic over a period of nine years. That pathologist expressed the opinion that the condition was the result of the chronic infection of the gall-bladder with acute exacerbations. One thing is certain, in nearly every case I have seen the arteries showed considerable stiffening, but I have looked upon it as a senile process, as these patients are usually past forty years of age. Most of these patients give a history of typhoid fever, and we know that inflammatory changes in the artery is noticed as the result of typhoid fever, and why may not this be accelerated by these exacerbations.

Dr. A. S. Lobingier:—I have been much interested in hearing Dr. Babcock's reference to digestive disturbances in gall-stones. We will remember that the very early idea was there must be jaundice and gall-stone colic to properly diagnose a condition of the gall-bladder which was surgical. When I visited Hans Kehr's clinic in 1902 he was strongly advocating

drainage of the gall-bladder for infection, and if there is anything that the doctor has emphasized tonight more than another, it is that cholecystitis is an infectious condition and that the presence of gall-stones is merely an incident. We should be interested in the relation of enteric fever to the pathology of the gall-bladder. Eighty-five per cent. of the cases I have operated upon have given a history of enteric fever. I never fail to make inquiry as to whether the patient has ever had any intestinal affection. The relation of the stomach to gall-bladder infection we are recognizing more and more, and those obscure symptoms are often the first indications we have pointing to cholecystitis. Moynihan has pointed out that it is not the amount of food, but the presence of any food in the stomach, however small the meal, that will give distress and a sense of fullness. In the last four or five years I have been draining the gall-bladder where there was no thought of gall-stones, but where we found an infection that was just as important as if gall-stones were present and where the operation was just as much indicated. I have noted but three cases in which the heart was affected, perhaps because my attention was not especially called to this point. But last year I had a patient where the pancreas was involved and there was cardiac dilatation, with recurrences from time to time. The symptomatology of gall-stones was very clear. The symptoms in the right hypochondrium compelled me to operate earlier than otherwise I would have done. I found the gall-bladder white with a granular and highly injected mucosa and filled with a hundred and eighty gall-stones. There was fat necrosis throughout the omentum and chronic

pancreatitis. This patient recovered. The cardiac symptoms improved and the patient is in excellent condition today. Another patient operated upon two weeks ago gave very marked symptoms of angina pectoris. The patient was a woman of thirty-five years. She had gastric symptoms so marked that I thought of gastric ulcer. I was compelled, on account of the increasing tenderness, to operate. I found the pylorus and duodenum highly congested, the peritoneum had lost its luster and the right lobe of the liver was very much congested. In fact, before the patient came to me there had been made a diagnosis of abscess of the liver. I could find no reason to think that such infection existed, however, but this condition gave the impression of a concealed duodenal ulcer. I opened the gall-bladder and drained it. There were no gall-stones, but the gall-bladder was large, thick walled with a granular and turgid mucosa which bled easily. That patient is making an excellent recovery. Only yesterday I had a patient come to the office with cardiac symptoms simulating closely the incipient ones in myocarditis and with pain in the right hypochondrium and epigastrium and marked tenderness anteriorly along the costal border above and over the gall-bladder. This tenderness resembling as it does Mackenzie's sign in gastric ulcer, I have found of very great value in gall-bladder disease as well as in gastric ulcer. Mr. Moynihan attaches great importance to this sign and during my last visit to Leeds he told me he was having more and more faith in it.

The question I would ask Dr. Babcock is, what is the infection in the gall-bladder that has relation to the myocardium?

Dr. Babcock:—The history of infection in some cases has been markedly negative. In other cases when I got any history of an acute infection it was almost always that of typhoid fever. I have been surprised that in many cases they gave no history of any acute infectious disease. As the doctor says, gall-stones are but an incident in cholecystitis and if the physician only makes the diagnosis when he can demonstrate gall-stones, he will overlook many cases. Most of these cases have shown only a white gall-bladder, with a granular mucous membrane, and filled with dark, sticky bile, nothing more.

I am coming to believe that if any patient complaining of stomach trouble does not on careful investigation show gastropnoia or dilatation secondary to some structural disease of the stomach, or some structural alteration, as in carcinoma, or does not show hyperchlorhydria, that the gall-bladder should be regarded with suspicion. I believe the stomach does not produce symptoms unless it is structurally changed or is disturbed by some condition outside the stomach.

Dr. W. W. Hitchcock:—Does the doctor regard tarry bile as pathological in the gall-bladder?

Dr. Babcock:—Yes, always.

Dr. E. W. Hanlon:—How does the doctor explain the dependence of the stomach symptoms in gall-bladder and appendix conditions? Another thing with reference to the eructations of gas. He said that two or three hours after eating these eructations of gas were an important symptom. I would like to know how and why we get these eructations in reflex conditions. I think he is correct in his belief that fever in an adult is

indicative of something besides an acute gastritis.

Dr. Babcock:—I do not know that I can answer those questions satisfactorily. Of course an acute attack of gall-stone colic will produce a motor insufficiency and we know that a dilatation is present in many cases suffering from gall-stones, in some cases due to adhesions, perhaps in others

due to an irritation of the vagus. Why these eructations occur in the small hours of the night I do not know. I cannot explain it, but it has been suggested that these eructations occur about the time that the gall-bladder is emptying itself and that, in some way, exerts its influence upon the stomach and results in these eructations.

## ACUTE DIFFUSE OEDEMA OF THE LUNGS (CARDIAC), WITH A REPORT OF THREE CASES.\*

BY C. E. YOUNT, M.D., PRESCOTT, ARIZONA.

The acute diffuse oedema of the lungs, of cardiac or cardio-toxic origin, to which I wish to direct your attention, is a distinct clinical entity, well recognized, carefully described by a number of writers, but strange to say much neglected by our text-book authors.

We would ask you to differentiate the acute diffuse pulmonary oedema occurring in arteriosclerosis, Bright's disease, heart disease, asthma, paracentesis of thorax or abdomen, ether anaesthesia, alcoholism, pilocarpine poisoning, angioneurotic oedema, extreme cold, intense mental emotion, and the acute infectious diseases, from the terminal or gradually increasing oedema of the lungs seen at times in all the above and in the death agony of many other diseases.

Taking the three cases in our report as illustrating the type of cardiac or cardio-toxic oedemas we would ask you to differentiate this class from the other types of acute diffuse oedema above enumerated.

The cause of this sudden overbalancing of the physiologic laws resulting in the acute diffuse pulmonary oedemas in general, has given rise to

considerable discussion and experimentation, but the question so far as we can learn is still an open one. The two best-known theories with their adherents are the mechanical theory of the German school demonstrated by the classic experiments of Welch and Cohnheim and the Toxic theory as upheld by the French writers, notably, Jaccoud, M. Vinay and Dieulafoy.

A recent French writer, M. Chemery, in reviewing the literature of the past twenty years, presents five theories, with their advocates, and discusses the merits of each. These theories endeavor to explain the acute oedemas in general and do not apply specifically to the oedemas of cardiac origin, but include them, hence, that we may the better understand the causes of acute oedema in general, we will briefly consider these theories.

### First—"Mechanical Theory."

This offers two dissimilar explanations, paralysis of the left ventricle advocated by Welch, Cohnheim and Frankel, and cramp or spasm of the left ventricle resulting in increased action of the left ventricle with fall of blood pressure and blood stasis in the

\*Read before the Arizona Medical Association, April 20, 1910.



right, as advocated by Grossman and Von Basch.

Second—"Angioneurotic Theory."

Under this theory is considered the reflex influences on the cardio-pulmonary plexuses, while Ranvier, who has demonstrated the influence of nervous troubles and vasomotor disturbances in causing pulmonary oedema, believes that there is an acute dilatation of the right ventricle, and this insufficiency of the right ventricle is the cause of the acute oedema.

Third—"Toxic Theory."

Here vasomotor inhibition is due to uneliminated poisons in the organism, as in uraemia.

Fourth—"Mixed Theories."

The adherents to the mixed theories recognize a complexed pathology, in which infection of some type takes first place while the nervous and mechanical influences are secondary. Lesions in the pulmonary capillary walls have been found post-mortem and such lesions, when they do occur, undoubtedly contribute to "serous pulmonary apoplexy," as in the oedema occurring in la grippe, scarletina and inflammatory rheumatism.

Fifth—"The Suprarenal Theory."

The theory of the influence of the suprarenal glands, advanced by M. Josué in 1905, may undoubtedly explain some cases of acute oedema of the lungs, as has been demonstrated experimentally in rabbits. In man, Josué explains some cases, especially those occurring in athroma and interstitial nephritis, i. e., those of high arterial tension, by an excess of adrenaline which he has demonstrated in the blood.

The summary given by H. A. Hare in Osler's Modern Medicine is as follows: "On the whole the most acceptable view as to the etiology of pulmonary oedema is that it is due to in-

creased capillary tension accompanied, aided and probably in many instances preceded, by degenerative changes, toxic in character, of the capillary endothelium."

I consider that the theory of L. Pouliot (*Archives Generale de Medicine*, Paris, Dec., 1909) fully covers the cases which I have to report. In brief it is as follows: "Acute oedema of the lungs is due to congestion; vaso dilatation of the arterioles and capillaries in the lungs. This vaso dilatation may be a nervous vaso-motor phenomenon of reflex origin or the result of the action of toxins on the nerve centers."

Symptoms:

A suddenly developing cough and dyspnoea, which may follow physical or mental over exertion, or may even awaken the patient from slumber is characteristic of the onset. Within a few minutes the patient realizes his imminent danger from suffocation as the white frothy fluid gushes from his mouth and nose faster than he can cough it up or expectorate it. The serum at first is white and frothy, not unlike spittle, soon changing to pink and finally to red if the oedema increases. The lungs are now in the state of "serous pulmonary apoplexy" as described by the French, and the quantity of frothy serum discharged may equal two liters as recorded by Newmeyer. As the oedema increases the blood pressure falls, the heart's action becomes weaker and more labored, capillary circulation is at a standstill, with increasing cyanosis. A cold sweat breaks out over the body, the extremities are cold and blue, respirations shallow and labored, unconsciousness supervenes, as a result of the carbon dioxide poisoning; the whole picture at this stage is one of imminent dissolution. In the hyperacute cases of the French writers,

death may occur in a few minutes. (See case II of this report.)

The chest emits fine crackling rales of every variety which are often heard across the room. Pulmonary resonance is but slightly altered. The fluid when allowed to stand "separates into two or three layers, an upper frothy and largest one, a lower pinkish, serous layer, and occasionally a very small third layer, darker sedimentary mucous and blood layer. Examinations of the urine immediately after an attack may show a moderate amount of albumin, blood and epithelial casts and free blood corpuscles. This disappears in a few days unless the kidneys should be secondarily affected."—(Newmeyer.)

#### Treatment:

I know of no medical disease which calls for more strenuous effort for a few minutes than acute diffuse pulmonary oedema. The heart must be sustained until the capillary leakage has been checked. For the first we recommend hypodermics of strychnine, camphorated oil, ammonia and digitalis,\* while atropine in large doses, together with morphine in small doses, is to be relied upon for the second.

Intravenous medication has been suggested, and immediate venesection in high tension cases (our cases were not of the high-tension type). We would also recommend ice or mustard synapisms to the precordium and vigorous rubbing of the extremities and areas of hypodermic medication to facilitate as much as possible the absorption of stimulants.

#### Case I:

\*Note.—Dr. John Wilson Shiels of San Francisco, in discussing this paper recommended Strophanthin solution, alkaloid of Strophanthus, for hypodermic use in these cases as being more rapid and certain in action and more lasting in effect than any of the drugs mentioned by the writer.

Mrs. R. E. I., white, female, age 67. Had the usual diseases of childhood, including scarlet fever and diphtheria, the latter at the age of 18. Attack of diphtheria was severe and a cicatrix left in the throat troubled her throughout the rest of her life. Was in poor health in her 26th and 27th years, had a physical examination at this time, "heart weak and irregular." Had pneumonia at 27, married at 28, never gave birth to a living child, but had three miscarriages after two or three months' pregnancy. In her 57th year was examined by a United States army surgeon, who found "weak and irregular heart." Came under my care first in 1903, suffering at different times with a throat angina, lumbago, intestinal indigestion; kidneys always found negative on examination. April 3rd, 1907, at the age of 67, she experienced a little pain in the chest and difficult breathing after walking about four city blocks (altitude 5300 feet) to a dinner party. Had to rest after walking this short distance. Retired at 10:15 p.m. feeling quite well. Was awakened at 12:15 by severe coughing and choking spell with difficult breathing. The oedema had been in progress about fifteen minutes when I reached patient. Found patient sitting up on side of bed in extreme dyspnoea, discharging rapidly a quantity of white frothy spittle-like fluid. Respirations rapid and patient gasping, "Doctor, do—something—quick—I am dying." I could find no radial pulse, and observed a general and rapidly increasing cyanosis. The frothy discharge soon changed to pinkish from admixture with blood, and increased in quantity. Consultation sought. Patient sinking into unconsciousness from carbon dioxide poisoning, with bluish mottling of arms, legs, chest



and abdomen, dissolution imminent, the patient drowning in her own secretions. Patient's head turned to side to allow froth to run out, she could no longer cough or expectorate. Atropine, morphine and strychnine had been given in large doses hypodermically, but apparently too late to get into the general circulation, and reach the center. However, we continued our efforts at renewing capillary circulation, with hot mustard bath and rubbing of extremities and especially the sites of hypodermic medication. Finally after a half hour of coma, consciousness began to return, preceded by a lessening in the amount of discharge, deeper breathing, and a feeble radial pulse. Two hours of ceaseless effort on the part of all attendants was rewarded by a cessation of the oedema, though the patient remained very weak for six hours, convalescence being established on the fourth day.

Second attack.—A second attack developed on April 16th, 1909, about 4 a.m., again awakening the patient from sound slumber. The expectoration of frothy serum was not so profuse, medical attention earlier, circulation better and atropine, strychnine and morphine took effect promptly, giving the desired relief.

Third attack.—A third attack developed on April 27th, 1909, at 6:55 a.m. Awakened out of sound sleep by this attack, lips and finger tips cyanotic, dyspnoea very distressing, but the fluid discharged was slight and the attack responded to the atropine, strychnine, morphine medication promptly.

I then sent this patient to sea level hoping the change in altitude would lessen the cardiac weakness. I was never able to discover a valvular lesion in this case. This patient died

at San Diego, Cal., three months later.

#### Case II:

Mrs. E. V., white, female, age 50, para I, nativity Nebraska, occupation hotel proprietress. Enjoyed good health up to the time of the climactic, being a large woman, five feet nine inches tall, weighing 225 pounds. I had frequent occasion to examine the urine during the past five years and never found any evidence of renal disease. Four years ago while assisting in "waiting on table" during a rush of guests, she was taken suddenly with oedema of the glottis, which for one-half hour seriously threatened life by suffocation. At various times thereafter had attacks referable to the heart, without any definite lesion having been discovered up to fifteen months ago, when I diagnosed aneurism of the arch of the aorta. At first the physical discomfort was slight, then there were occasional "smothering spells," then angina pectoris developed and during the last three months of her life she would have from one to five attacks of angina pectoris a week, occurring usually at night.

On the night of February 11, 1909, patient was enjoying her usual health as noted above, had prepared a banquet for a club party and was about to assist with serving of same, when some trivial thing greatly angered her, she left the dining-room greatly excited, sat down in her bedroom complaining of a smothering sensation; this was followed quickly by cough, dyspnoea, and profuse white frothy expectoration, and a sense of intense suffocation. I found patient sitting on edge of her bed with head over slopjar the white frothy discharge gushing from her mouth and nostrils; between gasps she exclaimed, "Doctor, I am dying, for God's sake do something quick." There was no radial



pulse and the finger nails and lips were then cyanotic. I gave her a hypodermic of strychnine, but before I could again load it her head dropped forward on her husband's shoulder and she was dead. The frothy serum first discharged was white, but was taking on the pinkish tinge when death occurred at 10:40 p.m. or about twelve minutes after the attack began. I lived next door to this patient and lost no time in responding to this call.

#### Case III:

Mrs. G. M. R., colored, female, age 48, para I, short heavy set, apoplectic type. Had treated this patient at various times during the past five years for gastric indigestion, lumbago and hysteria. Had examined the heart and kidneys several times and never found any evidence of nephritis or valvular heart disease, though I suspect the condition of "fatty heart." On the evening of August 24th, 1909, the patient had occasion to investigate her husband's conduct toward another woman and thought she discovered evidence of flagrant infidelity. In violent rage she endeavored to overtake her rival in a chase of about two city blocks, but failed. She went home in a very greatly agitated mental state and physically tired. Was soon after seized with cough, great dyspnoea, and precordial distress. I was hastily summoned and found patient gasping for breath and expectorating freely white frothy serum. Radial pulse scarcely perceptible, frothy serum soon tinged pink with blood, and now gushed from her mouth, patient gasping that she was dying, and hurry and do something. Hypodermics of atropine, strychnine and morphine were promptly employed. Mustard draught applied over precordia and extremities were bathed in mustard water and

every effort made to keep up peripheral circulation, and to get the drugs absorbed which had been administered hypodermically. The breathing was rapid and labored, while the crackling rales could be heard in an adjoining room. After an hour's constant effort, the oedema was checked and the circulation improved. I left digitalis and ammonia to be given and went home at 1 a.m. At 2 a.m. she suffered a relapse and I was again called. The frothy mucus was blood tinged and pulse weak and irregular. Former treatment repeated. Improvement prompt and apparently satisfactory. At 10 a.m. a third attack; this was the lightest of all and convalescence was prompt, though the crackling rales remained in the chest for two days.

#### Summary:

I. Our three cases occurred in women, in fair state of health, suddenly and at night.

II. All three patients believed themselves dying, cases one and two were rescued from "drowning" in their own secretions.

III. Case one might be considered as of cardio-toxic origin, but cases two and three we consider to be of the cardio-neurotic type.

IV. Frequent, previous examinations of the urine in these cases failed to show evidence of nephritis in any case.

V. There was loss of radial pulse in all three cases for a time, i. e., greatly lessened blood pressure.

Prescott, Ariz., April 19, 1910.

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California's New Industry, Growing Humans, is the striking title of an instructive booklet recently issued by the State Board of Health.

## PHTHISIOPHOBIA,

## Or the Unreasonable Dread of a Person Infected With Tuberculosis.

BY ISAAC W. BREWER, M.D., MANILA, P. I.

"'Room for the leper!' And aside  
they stood—

Matron, and child, and pitiless man-  
hood—All

Who met him on his way—and let  
him pass."

Were the word "consumptive" substituted for "leper" the poem would express very well the attitude the public is assuming towards those who suffer from tuberculosis. In a recent issue of one of the medical journals, the editor writes at considerable length "a justification of phthisiophobia," his argument being that most cases of tuberculosis are derived from some previous case with whom they were associated, and that it is just as proper to isolate those with tuberculosis as those who have scarlet fever.

The general public seems to be working to this end, and unless common sense prevails the time is not far distant when they will shun every known case of consumption as they now do lepers. Oklahoma already denies a tubercular physician the right to follow his calling.

What will be the result? The disease will increase for the incipient cases will not be reported. A cough will be hidden and the man or woman who raises "just a little" occasionally will hide that fact, and above all will avoid consulting a physician lest the dread germs be found in the expectoration.

It is only the ignorant and careless consumptive that is dangerous. Those who have come under the care of a competent physician are usually most careful about their expectoration. These statements will be borne out by the experience of hundreds who have been working with this disease. Personally, I have for many years associated with persons suffering from

tuberculosis, and for more than five years at one time, lived in the same house and ate at the same table with such a person. Neither I nor any visitor or guest in that house contracted the disease. It is said that no healthy worker at the Adirondack Cottage Sanitarium has ever contracted the disease. The real danger is the undiagnosed case, or the attack of bronchitis, or the case that is concealed.

The absurdity of the action of Oklahoma is proven by the splendid work of the faculty of physicians at Saranac Lake. From Doctor Trudeau down, nearly every one has had the disease, and far from being foci from which the disease has been spread, they have been a great center for its prevention. Almost every house in Saranac Lake receives persons with tuberculosis, and yet cases amongst the native population are very, very rare. Saranac Lake is about the only town in the United States where measures to prevent the spread of tuberculosis are enforced. Especially is this true regarding the spitting regulations.

The isolation of cases of measles, scarlet fever and smallpox, as well as many other diseases, is necessary because we do not know the cause or the manner in which the infection is transmitted. It is different, however, with tuberculosis; we know both the cause and the mode of its transmission, and can destroy the germs, and prevent infection without resorting to the harshness and expense of isolation.

Let the man or woman who desires to guard himself or herself or their family from tuberculosis devote their energies to building up a strong, healthy body. Let them live on simple

food, secure an abundance of fresh air, and avoid excesses of alcohol, and other forms of dissipation. The germs of tuberculosis are widely disseminated, and it is beyond our power to capture or kill them all, much as we may desire to do so. The great question, from a national standpoint, in regard to tuberculosis is to provide proper food and proper surroundings for the working people. If we are to accomplish anything in this campaign

against tuberculosis we must abolish the slums, and so adjust the cost of living that the workers of the nation will no longer go to their daily toil without being properly nourished. It would be better for those who are inclined to devote their money to charity to look first at the habitations and the food provided for those who toil for them. This is the true attitude which the philanthropist should occupy towards tuberculosis.

## A PSYCHOLOGICAL STUDY.\*

BY HAMILTON FORLINE, M.D., REDLANDS, CALIFORNIA.

One of the most interesting problems in abstruse biology is the relationship, in so far as it pertains to the practice of medicine, existing between mind and brain and the influence exerted in the treatment of disease.

The field which I shall ask you to traverse is becoming more and more trodden, yet I believe its fruitfulness, in our day, will not nearly be exhausted nor the universal conception of its value reach its proper plane.

There is an atmosphere of the impenetrable about it, which while increasing one's interest, leads in the profound contemplation of it to the door almost of infinite mystery.

The subject is anything but new, as evidences of mental influence in disease having been recognized, are engraved on the pillars of the Temple of Isis: and in various guises has constituted more or less important functions in medical, religious and ethical annals from almost the inception of history. It has been the subject of extensive deliberation by many academical bodies and able individual observers, with the result that today its existence as an agent of varying value is unquestioned, but

its exact position is undefined and its analysis is most incomplete.

At the present time, however, psychology and cognate subjects, and their influence in health and disease are receiving widespread attention from some of the best thought in the scientific world: and notwithstanding the tendency of modern medicine to traverse only those paths which are entirely rational, analysable and tangible, holding itself ever aloof from the mysterious and apparently miraculous, and in doing this permitting a valuable component of its armamentarium to fall into the hands of the charlatan and the cultist, there is an awakening which forebodes a vigorous probing of the subject, which it is to be hoped will lead to the proper teaching and placing of this agent in recognized therapeutics.

The present viewpoint of the medical profession, as has been pointed out by Shaw, is how much of truth there is in the theory of those who employ suggestive treatment. They ask for information as to whether there is such a thing as mental influence upon structure (whether sound or morbid). They want to know how much of what

\*Read before the Southern California Medical Society, Los Angeles, December 8, 1910.



had better once and for all be called humbug—if any—enters into the composition of treatment by suggestion; whether the air of mystery with which it is often associated, is in reality a part of the paraphernalia of the charlatan, whether the vaunted success is in fact merely that of the quack, or whether there is so much truth in the process that it must be seriously entertained. The greater our experience the more we must acknowledge that there are possible powers and influences which though we may ultimately succeed in grasping, are at present unknown to us, except indefinitely, and it is this indefiniteness, ignorance and want of precision on our part which is made the foundation of the spiritualist, the hypnotist, the suggester and the cultist—our *terra incognita* is their playground.

We can scarcely avoid some discussion of the present position of the spiritual life. Because it is with this that suggestion may be concerned. Is there such a thing as spiritual life? Is there, apart from the bodily tissue, a something which is independent of it, which can operate upon and be affected by the body, and which can be recognized as plus or minus in its power of action and which can be used by the patient for his own advantage?

When we suggest to a person that he shall exercise his will, are we not asking him to influence one of his ultimate faculties? How is his will to be influenced? What is the controlling agency that is to whip up or put the brake on the dormant or the perverted will? Is there a higher will somewhere in the background? There is, say the religious party; and this is what we call the Deity, and He must be petitioned to give power to use the will in the right direction. Does the hypnotist then or the suggester impose his own will on that of the patient and arouse or guide it

in a vicarious manner thus making himself into a *Deus ex Machine*? Then we are reminded if there is no such spiritual world, no such Deity, no such essence, no such, as Hackel calls it, "gaseous vertebrate" outside of the body as we know it, millions of men have been for ages and are now mistaken, and immeasurable oceans of blood have been spilled over a myth. The teachings of the church in all its forms is by suggestion, and what is linked with it, by authority. We are told, not asked, but told, to believe in what we have never seen, and cannot objectively prove.

Nor can we in the light of our present knowledge say that these spiritualistic dreamers are wrong; but when we consider that modern science has demonstrated the actual truth of bombardment by ions as the cause of magnetic storms and the phenomena of the aurora borealis, when the composition of matter is said to consist of concentric whorls of electric ions rotating with inconceivable rapidity, who is to say to what at present unseen and unknown agencies we may not yet be introduced?

The investigations of modern psychologists, which are absolutely materialistic, in reality leads us more deeply into mystery. They insist that will, attention and conative processes are results, not causes, and if so, that there are of course no such things as primitive faculties in the direction of compelling forces. It is to be greatly regretted that the subject of psychology has not a more widespread recognition in our institutions of learning, as its problems are the most fundamental of all; and there is no subject that can occupy the human mind which does not rest ultimately upon some assumption in the domain of psychology. Its study leads to such questions as does mind exist apart from matter? Is there any such thing as matter, or is it

only a metaphysical assumption? What are the grounds of belief, of certainty, of likelihood? If brain and mind both exist and are connected, what is the nature of the connection between them? These are some of the problems of psychology, and upon the solution which we adopt, depends the whole fabric of our conduct.

Mind is often spoken of as a function of the brain. It may be, as Mercier has pointed out, in a mathematical sense a function of cerebral operations; though it would be an unwarrantable application of a term that has a precise meaning, to make an assertion of whose truth we are ignorant; but in a medical or a physiological sense, mind is not a function of the brain.

By the function of an organ we mean, or should mean, in medicine, the task that the organ performs in the economy of the body; we mean the physical effects of the activity of the organ. Thus, the function of bones is to give rigidity to the body, to give points of attachments of muscles, and protection to delicate structures; the function of muscles is, by contraction, to produce movements; the function of glands is to secrete and elaborate fluids or liquids; and the function of the brain is to receive, store and liberate motion. The reception, storage and liberation of motion is a physical, not a mental process. The function of the brain is not only to receive, store and liberate motion, but to perform these things discriminately; to separate and re-combine streams of motion; to divert them here and there, to accumulate here and discriminate there. And its distributory function is not merely to pour out motion at large, as water is poured from a jug, but to distribute it to the various organs in definite quantities and proportions, so that each organ shall be governed to

perform just so much function for just so long as is required.

It is often supposed, at least people speak and write as if they supposed, that there is one part of the brain for the purely physical and physiological functions, and another part in which the mental operations go on. But a little consideration will serve to demonstrate that this cannot be so. The whole of the brain is constituted fundamentally alike. The neurons in one part have, it is true, certain differences from the neurons in another; but throughout the brain we find neurons and nothing else, except their supporting framework and nutrient vessels. If the neurons in certain parts of the brain store and carry motion, surely so do the neurons in another part.

The functions in the various parts of the brain differ in complexity and elaborateness, depending upon the parts they regulate, but since the structure is fundamentally similar, the function also must be fundamentally similar.

Try to picture to yourself how the neurons of the brain—the branching fibres with their regulating cells—can produce or contain a sound of high C; the smell of putridity, an emotion of anger or other purely mental state. Such things are not in the brain; they are not in the neurons; they are not in the cells; they are not in the fibres. They are in the mind. And the mind is a universe by itself, distinct from material things.

The above views are of Mercier, and he further points out, that between the mental and the material there is a gulf which no imagination can bridge. Yet the brain and mind, in our experience are inseparably bound up together. We know of no manifestation of mind except in animals with a nervous system; and the more elaborate the nervous system, the higher, as a rule, the type of mind.



Agents purely physical applied to the brain produce startling effects on the mind and even annihilate it altogether, temporarily or permanently; and no positive action of the body is undertaken except after, and as a result of, that mental process or action, we call exerting the will.

Dr. W. Hanna Thomson, in a recent interview, answering Thomas Edison's late spectacular flight into the realm of the immortality of the soul, calls our attention to the well-known seat of the speech center in the following language: "There are two brains, not a brain. The brain with the logos, or power of speech is the brain with the mind. The other brain is that of the animal. Dr. Von Helmholtz, now dead, was the greatest of European scientists. He was a right-handed man and in right-handed people the speech center is in the left hemisphere of the brain. He had two strokes of apoplexy. The first struck him in the right hemisphere and did not finish him. The second struck him in the left hemisphere, and he died. The right hemisphere of his brain had no more intelligence than the brain of a cat. Von Helmholtz was not in the right hemisphere of the brain; he was wholly in the left, and when apoplexy struck him there, it laid him low. In one hemisphere there was no Von Helmholtz; in the other side was Von Helmholtz." Thomson goes on to say that "the phonograph is no more responsible for the sound from its record than the brain is for the speech that is uttered. In speech the brain is the instrument of a personality just as the phonograph is the instrument for a reproduction of sound."

Notwithstanding then, the gulf impassable apparently, to human knowledge that exists between the universe of matter and the universe of mind, the mind does appear to be conditioned by the action of the brain, and

the body does appear to be set in action by the operation of the mind.

What, then, is the solution of the puzzle? What is the connection between them? The answer is plainly, we do not know. The principal hypotheses are Monism, Dualism, the Libnitzian hypothesis of Parallelism or pre-established harmony and the Epiphenomenon of Mercier.

The Monism theory is, that when a brain process conditions a mental change, there are not two changes, but only one. The brain change and the mind change are two aspects of one process, two sides of the same shield, separate to us because of the limitations of our mental capacity, but in reality but one. This is a purely verbal explanation, and is practically no explanation at all.

The dualism hypothesis, supposes that the processes in the brain produce the mental changes; that there are two sets of changes, mental and bodily, and that the bodily are the cause of the mental. In proof are adduced the many incontestable instances of changes in the mind following immediately and directly changes in the body; for example, a pin is stuck into the leg, the nerve currents started thereby pass up to the brain and there produce a feeling of pain. If every mental change were preceded by a body change, this hypothesis would be plausible, but it fails altogether to account for the fact of volition, in which, so far as it is possible for us to judge, the bodily changes do not precede, but follow the mental operations.

In the Libnitzian hypothesis of parallelism, or pre-established harmony, it is supposed that the two sets of changes go on together always parallel to one another and simultaneous, but that there is no connection whatever between them except simultaneity. They simply happen together because the Almighty ordains that



they happen together. It is clear that this explanation explains nothing.

But though we cannot explain the connection between mind and brain, we gain an inkling from the so-called epi-phenomenon, i. e., we look upon mental processes as imposed on material processes of the brain; as for example, when an impression is made on the body from without, either by material contact or by sound waves or light waves or in any other way, a nerve current is set up which flows from the part impressed to the brain. Hence after much wandering and many changes, it issues at length as an efferent current to the muscles and produces a bodily movement.

The circle of causation is closed. Now if our means of measurement were adequate we should find on the principle of the conservation of energy, that every unit of motion was accounted for by material changes of position and none was left for mental effects, supposing such effects possible. But at the turning point of the current occurs this epi-phenomenon, just as in an electric current the current flows completely around but at the point of greatest resistance where the flow is most impeded, a new phenomenon appears in the shape of a glow of light; so in the nerve circuit, the excess of resistance at one place is the condition of the appearance of an epi-phenomenon, a mental change. The parallel though is faulty, because in the electric circuit the epi-phenomenon occurs at the expense of a portion of the energy which disappears from the circuit; while in the case of the brain, we do not know nor can we conceive that any portion of the energy is converted into mind. However faulty, this illustration is at any rate a help in dispelling the notion that the production of mind is in any way

a function of the brain, or at least in any sense in which the term function is used in medicine.

I refer to these psychological problems and perplexing mental gymnastics for the purpose of impressing ourselves with the difficulties in the way of the seeker of the knowable in this matter and to bring to mind some of the viewpoints from which the subject must be observed. And to stimulate some degree of that interest which it is to be hoped may lead ultimately to the adoption in our medical schools methods of thorough training along psycho-therapeutic lines. That there is great value in the judicious application of this principle in the treatment of disease, I am firmly convinced, and hail the day when the medical profession tears this almost alien agent from the grasp of the ignorant, the charlatan and the cultist.

It is not my purpose to consider methods of application, the individuality or personality of the physician as a factor, the technique nor the recitation of marvelous cures, but present the subject, for reasons already stated, from a probemational point of view.

And I do not believe that because of the apparently insurmountable difficulties in the way of solving these problems should discourage the profound and systematic study of the phenomena connected with brain and mind, and the application in the practice of medicine, as we have reason to believe that there is absolutely no limit to the possibilities of human accomplishment. Certainly our present position should be that no case is to be relegated to the scrap heap without the conscientious and judicious application of the mental influence in disease, as in it we have a measure which has unquestionably a place in

medicine and which belongs to the profession of medicine and to the profession of medicine alone. The people should be taught that it is a remedy not to be indiscriminately used and that its administration is to be directed by those whose knowledge enables them to determine its indication in each particular case. We should be honest with our patients and should divest it so far as possible of the atmosphere of the mysterious, placing it in our armamentarium as a material agent. As a material agent

in reality it is. However it may operate, we may rest assured, it does so along definite lines and in compliance with immutable laws.

For hundreds of years the art of medicine occupied itself in the treatment of disease; at the present time the science of medicine is busy with the problems of the prevention of disease, and to the art and science of medicine of the future will devolve the task, through studies of mind, the preservation and development of the purity of the human race.

## CARDIO SPASM.\*

BY CLARENCE MOORE, M.D. LOS ANGELES, CALIFORNIA

As a preliminary to this paper, I shall review briefly the anatomy of the esophagus.

The esophagus is a muscular tube about 25 c. m. long, which is immediately continuous with the lower end of the pharynx above and the cardiac end of the stomach below. It is divided into three portions—the cervical, the thoracic and the abdominal. The thoracic portion being the longest and the abdominal the shortest. In a general way it lies in a vertical direction with a lateral deviation to the left. It follows the curves of the cervical and dorsal spine until it passes in front of and to the left of the aorta just before passing through the diaphragm to empty into the stomach. Its caliber is narrowed in three locations, one opposite the cricoid cartilage, 2nd 6.9 c. m. below this point or where it crosses the left bronchus, and 3rd, where it passes through the diaphragm. At these points its diameter is about 1.25 c. m. and the rest of the distance it being about 1.9 c. m. The walls of the

esophagus gradually diminish in thickness from above downward owing to the striated muscle being replaced by the non-striated fibers. The muscular wall is composed of an inner circular layer and an outer layer of longitudinal fibers. It is lined by stratified squamous epithelium. The blood supply is derived from the inferior thyroid, the aorta, gastric and phrenic arteries. The nerve supply being mainly from the pneumogastric nerves through the plexus gulæ.

Although the symptom complex of cardio spasm has been known to the medical profession for a number of years, it is only lately that we have come to a more clear understanding of this condition.

Von Ziemssen and Zenker in 1878 collected the reports of 17 cases and described them under the name of simple ectasia and they stated that in these cases there was great dilatation without any stenosis being present. In 1900 Neuman was able to find 70 cases reported in the literature and Mikulicz in 1904 was only able to col-

\*Read before the Los Angeles County Medical Association, January 20, 1911.

lect reports of 100 cases. During the past five years this number has been more than doubled, Plummer in the Rochester Clinic alone reporting 40 cases seen within the past three or four years.

The condition of cardio spasm with dilatation has been described under a variety of names, simple ectasia—spindle shaped dilatation of the esophagus without anatomic stenosis, spasmogenic diffuse esophagus dilatation—cardio spasm with diffuse dilatation and a number of others.

There is still some confusion as to the proper terms to be applied to the condition described under these various titles, but the last name is the one that seems to be becoming more universal.

There is a considerable difference of opinion as to the etiology and pathology of this disease.

Rosenheim states that the dilatation is primary and the cardio spasm being secondary. He bases his contention on the fact that in anatomic stenosis of the esophagus (as in carcinoma or stricture) that sacculation rarely develops. Strauss believed that the dilatation and spasm occurred at the same time and that they were both due to the same cause, vagus paralysis. Fleiner believed the condition to be a congenital one.

But to Meltzer belongs the credit of recognizing the true factor of the spasm of the cardia as being the primary cause of the diffuse dilatation of the esophagus. The spasm he attributed to some disturbance in the nervous mechanism that controlled the cardia, and he based his conclusions on theories that he evolved from the study of the physiology of the esophagus.

Reviewing the history of a number of cases, a history of spasm at the on-

set of the disease is the universal rule and followed at a sooner or later period by evidence of dilatation. This conclusion is further borne out by the post-mortem findings of early hypertrophy of the muscular wall of the esophagus and the observation of early cases of cardio spasm in which you are unable to demonstrate any dilatation. After dilatation takes place little, if any, spasm more than the normal muscle tone of the cardia is needed to produce stenosis.

The cause of the spasm up to the present time is in doubt. In Plummer's series of 40 cases there were three cases of carcinoma with cardiac spasm, one with hour glass stomach due to syphilis, and in the balance there was no evidence of previous disease that might produce the spasm, and the chronic esophagitis and ulceration if present were looked upon as secondary to the cardio spasm and not the cause of the spasm.

There is a good deal of controversy as to the mechanism of the act of swallowing. Kronecher and S. Meltzer in their experiments found that fluids were forced into the esophagus and down to the cardia by the action of the mylohyoid muscle and remained there until the peristaltic waves followed, when they were forced through the cardia into the stomach and that solid food after having been forced into the esophagus is carried to the cardia by the peristaltic wave of the esophageal walls. Schreiber differs from Kronecher and Meltzer in regard to the muscles involved in the act of swallowing and states that when the mouth and naso pharynx are closed, that the mylohyoid muscle throws the food into the pharynx, where the middle constrictors with the other muscles press the food down into the esophagus. He also says that the in-



inferior constrictor antagonizes the muscles used in the swallowing and that it holds the upper end of the esophagus in tonic closure and after the bolus has passed into the esophagus the inferior constrictor closes after it. Schrieber also found that liquids are not squirted down to the cardia, but were carried there by peristalsis like solids.

The question as to how liquids and solids are forced past the cardia makes no difference after obstruction takes place, as the esophagus then is unable to force liquids and solid through with equal facility. As soon as dilatation takes place the food is carried down the esophagus in a normal manner to the point where the dilatation commences, and then at this point the peristaltic waves pass around it.

Mihaliez found that the intra-esophageal pressure during rest is a little below atmospheric pressure, during inspiration it was lowered to 9 c. m. of water pressure and during forced inspiration to 20 c. m. On expiration it was raised at positive 10 c. m. of water pressure, and on forced expiration to about positive 20 c. m. of water pressure. During the act of swallowing the intra-esophageal pressure is raised to between 8 c. m. and 22 c. m. of water pressure.

The amount of pressure to open the cardia from the esophageal side is usually, some fraction of the pressure of the column of fluid filling the thoracic portion of the esophagus.

If the resistance of the cardia is increased a portion of the food swallowed will therefore remain in the esophagus and ultimately as the resistance remains or increases dilatation will take place. As an example: If the normal amount of pressure to open the cardia be equal to a column

of fluid 12 c. m. in height, any more fluid above this height would be forced through the cardia by its weight and still leave in the cardia a column 12 c. m. high, but this could be carried through the cardia by the effort of deglutition which about equals 12 c. m. pressure. But if the cardiac resistance equaled 24 c. m. there would still remain 12 c. m. of fluid even after deglutition takes place.

As long as the esophagus is not dilated the effect of pressure is not of much importance, but as dilatation takes place the pressure becomes greater and dilatation is rapid.

Cardio spasm may be divided into three stages of development:

1st Stage—Peristaltic contraction is sufficiently strong to force the food through the cardia. This stage is recognized clinically by complaint of discomfort, pain and choking after meals.

2nd Stage—Here the peristaltic force of the esophageal muscle being no longer capable of overcoming the spasm of the cardia and food is immediately regurgitated. This being the result of either increased obstruction at the cardia or that the esophageal muscle is tiring. The spasm as a rule early in the disease is periodic, but as the trouble increased the spasm becomes more or less continuous. Because of the increased amount of work thrown on the esophageal muscle hypertrophy of the muscle takes place, but as the spasm becomes greater the muscle is unable to overcome the obstruction and dilatation and atony take place.

3rd Stage—Here when the esophageal muscle begins to give way the dilatation is rapid. Retention of food is present, and regurgitation takes place at irregular intervals after eating.

Symptomatically cardio spasm may be divided into three stages—its development:

1st—Cardio spasm without food regurgitation. Here the spasm occurs suddenly and unexpectedly while the patient is eating. He complains of a spasmodic choking sensation in the esophagus, usually locates it at the cardia, radiates to the back or into the neck. It is not often called a pain. Sometimes patients locate this discomfort entirely in the epigastric or upper portion of the esophagus. This discomfort may be present for months and be independent of taking food. Sometimes the spasm is described as a sensation as though the food seemed to stick behind the sternum.

2nd Stage—Cardio spasm with immediate food regurg. Here the food is regurg. almost immediately after taking. The attacks occur at more or less periodical intervals or the condition may be continuous of a mild degree but with acute exacerbations.

3rd Stage—We have the cardio spasm with a dilated esophagus greater or less retention of food which is regurg. at irregular intervals.

In this stage the first portion of a meal as a rule is retained, but as the dilated esophagus fills the latter part of the meal is either regurg. or by its weight forces the earlier part through the cardia. The more fluid contents as a rule gradually pass through the cardia, but the more solid food is either regurg. sooner or later or remains in the esophagus until the next meal. A patient may state that his esophagus is empty and on passing stomach tube 3-4 oz. of food will be withdrawn. The more solid the food the longer it remains in the esophagus. I have withdrawn meat that had been eaten 2-3 days previously. The regurg. of food is without pain and is

not accompanied by any nausea. Patients all state that the vomitus is not sour and they have a sense of heaviness and fullness in the chest which is relieved by the vomiting. A frequent complaint is that food sticks in the gullet or that it will not stay in the stomach. Loss of weight is the rule and may be of an extreme grade.

In the diagnosis as practiced at Rochester by Dr. Plummer, the following points are proven:

1st—That the food is regurgitated from the esophagus and not from the stomach.

A test meal is given. If there is enough obstruction to prevent the food from entering the stomach, the tube is passed into the stomach and the food given through the tube. Then withdraw the tube and the second portion is eaten by the patient in the ordinary manner. At the end of an hour the pump is again passed, the stomach contents withdrawn. Then the contents from the esophagus is obtained in the same manner. These separate contents are analyzed. The stomach contents will be found normal as a rule and that from the esophagus alkaline or neutral in reaction. If unable to pass the tube the obstruction may be overcome by using an obturator of some nature inside the tube. The complicated test meals of Rumpel and Kelling are not necessary.

2nd—Prove the existence of an obstruction at the cardia and note the character of the obstruction. If you are unable to pass a stomach tube, but on introducing a whalebone staff with an olive tip and it passes the obstruction without much difficulty cardio spasm should be at once thought of. Occasionally even an olive tipped staff cannot be passed. This may be due to angulation or tortuosity of the canal through the obstruction. Marked ob-

struction to the passage of a sound in cardio spasm rarely is present provided the sound directly enters the cardia. The slow giving away of the obstruction felt through the passing of the sound is due to the tip impinging on the bottom and side of the dilated esophagus and not to overcoming the obstruction at the cardia, as is thought by many authors. Patients at Rochester are instructed to swallow a silk thread. Ordinary buttonhole twist is used. They swallow three yards in the evening. This will form a snarl in the stomach which will pass through into the intestine during the night. In the morning a second three yards are swallowed. This will pass without snarling. Olive tipped staffs are then threaded over the silk thread and introduced into the esophagus. The thread is drawn taut and in this way the olive tip always passes directly into the cardia. If still unable to pass the obstruction a staff with a flexible olive tip is used, the olives being of variable size. The flexible olive will pass any obstruction where angulation or tortuosity is present. One word in the differential diag. of deep-seated diverticula and cardio spasm. In all diverticulae the mouth of the diverticulum lies in the same axis as the esophagus and on passing the staff it will invariably pass into the diverticulum. But if used on the silk thread and the thread is not held taut the olive will pass into the diverticulum; by pulling the thread taut it will raise the tip of the staff to the mouth of the diverticulum and the sound will then pass down the esophagus and on into the cardia. This is a method devised by Plummer at Rochester.

3rd—Determine the existence or absence of any dilatation of the esophagus, its size, shape, capacity.

Radiographs should always be taken. Patients should be given 2 oz. of a bismuth mixture suspended in mucilage of acacia or some other vehicle. Radiographs should be taken in both the oblique or so-called fencer position and in the anteropost position. If properly taken they should show with great distinctness the shape and size of the dilatation. The dilatation is almost always greater to the left with the greater convexity to the left and down and the lesser convexity to the right and up. They may be spindle shaped, cylindrical or pyriform. As a rule the dilatation will extend as high as the 3rd dorsal vertebra. As a further means of demonstrating the capacity and shape of the dilatation, the Russel Bag may be used or the sound devised by Plummer. This sound consists of a rubber dam balloon attached to the lower end of a perforated tube. Over this, oval silk bags of various known sizes are drawn and fastened to the tube. This is then introduced into the stomach and filled with water. Then withdraw the tube until the resistance of the cardia is felt. The water then is withdrawn and the sound pulled back through the cardia and then again distended. If still able to move the sound up and down, larger bags are used. This is repeated until unable to move the sound without much traction, thus determining the diameter of the dilatation and its capacity. It is also a differential test between diverticulum and dilatation.

4th—The determination of the presence or absence of pathological conditions in the esophagus that might be the cause of the spasm. This can be readily done by esophagoscopic examination.

Fissures and ulcers should always be looked for at the cardia as they may be the cause of the cardio spasm.



and their presence should be known before treatment is commenced. The cardia appear funnel shaped or like a rosette. If unable to pass the cardia with the esophagoscope an obturator will have to be used. This difficulty is due not so much to the spasm and obstruction as it is due to the inability of placing the esophagoscope in the same perpendicular plane as the opening of the cardia. Ulcers and a catarrhal inflammation of the mucosa of the esophagus above the cardia, are to be looked upon as secondary changes due to food retention and not the primary cause of the spasm.

Until recently the treatment of cardio spasm has been entirely medical and consisted of the passage of graduated sounds, bland, non-irritating foods, and nerve sedatives. And if these were not successful a gastrostomy was performed and the cardia forcibly dilated by inserting the fingers into the spasmodically contracted opening or using some form of instrument into the cardia from the stomach side. To Russel belongs the credit of introducing the method of dilating the cardia by means of a silk covered rubber bag, he having reported four cases cured and one greatly improved; since then a number of cases have been reported cured by this method.

The dilator as used by Plummer and the one with which I am familiar consist of a rubber bag cemented to the end of a perforated non-elastic tube. Over this a silk bag, sausage-shaped, is drawn so as to limit the dilatation and preserve the shape of the rubber bag. A second rubber dam bag is drawn over the silk bag to make it easier of introduction. These silk bags are made in various sizes of from 10 c.m. long and ranging from 20 m.m. to 40 m.m. in diameter. The metal tip of the staff is threaded to permit the

fastening of the drilled olive tips used on the staff for sounding. The patient having previously swallowed the silk thread and the position of the cardia having been established; the dilator with the drilled olive tip is threaded over the silk thread and introduced into the stomach, then withdrawn until the middle third of the dilator is opposite the middle of the cardia. The dilator now is connected with a water faucet or pump having a gauge or a manometer between to determine the pressure.

The dilator is firmly held by bracing the hand against the incisor teeth to prevent its being withdrawn into the stomach when pressure is introduced. The pressure is determined by the amount of pain experienced up to 500 m.m. of pressure. If more than this is required, gradually increasing sized dilators are used, but care must be exercised to be sure that each dilator is filled to its maximum size before another is introduced. The sphincter must be completely paralyzed to ensure good results.

Cases which show angulation require more dilatations and greater pressure to overcome the spasm. As a rule from 3 to 5 dilatations are sufficient to do this. Intervals of from 3 to 4 days between the dilatations should be practiced. If fissures are present a moderate amount of dilatation should be practiced to permit their healing before dilating the cardia to its maximum size. A case should not be discharged cured until after the esophagus has been found free from food for an interval of at least from 10 days to two weeks. Following the dilatation relief is almost immediate. Nothing more than a slight soreness is experienced following the dilatation and the patient is able to take a full meal.

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### SMALLPOX IN EL PASO.

The town has been so wrought up for the past month over the smallpox situation that the Board of Health here issued a report dated January 29, giving the exact condition and it is not at all alarming.

During the month of January of this year there were reported twenty-one cases, seven of whom have died, now remaining in the hospital, thirteen. Six of those that died had never been vaccinated, and the other one had been, but not successfully. Of the thirteen cases now in the hospital, eleven had not been vaccinated, one vaccinated 37 years ago, and one 7 years ago. This seems to bear out the former statistics, as they say in the seven hundred cases that have been treated there, there has never been a fatal case where the person has been vaccinated successfully.

The cases this year have been mostly confined to the American and it is a natural sequence, as at the time of the last scare twelve years ago the American population were all vaccinated as well as the Mexican, since that time it has been compulsory with the latter, while the former have avoided it. The lack of a strong immunity in those formerly vaccinated and the new unvaccinated coming to town in the meantime offers a fertile field for the disease, but at the rate they are now being vaccinated there will not be an unvaccinated person in El Paso within two weeks, and no fear is felt but that there will be no case in the hospital within a month. —[Bulletin of the El Paso County Medical Society.

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A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

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Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

## EDITORIAL

### THE AMERICAN MEDICAL ASSOCIATION AND THE PANAMA CANAL.

It is to the everlasting credit of the American Medical Association that the work of its members has made it possible to build the Panama Canal. The St. Louis Republic recently called attention to this momentous fact in an item entitled

DOCTORS DIGGING THE DITCH, and points out the fact that if the canal zone had not been made habitable, by ridding it of malaria and yellow fever, all of the engineers and all of the machinery in the world would be "exactly as nothing" in the attempt to construct the canal.

In view of the attacks upon the American Medical Association and upon the policies for which it is working, every opportunity should be improved to let the general public know what kind of doctors its members are

and what its objects really are, and this canal item is an excellent text.

The latest manifestation of the work of the League for Medical Freedom in this city is an editorial in the Los Angeles Herald in which the proposed national board of health is attacked, because it would interfere with the personal freedom of every householder, and place the control of all cases of illness in his house at the caprice of an incompetent inspector, thus destroying that century-old English custom which makes a man's house his castle, a refuge which none may enter uninvited, and insist upon his employment of a physician chosen by the inspector.

The reply to these statements is that English law has protected a man's home only against unwarranted invasion. For many years the power of quarantine has existed in each community, and the establish-



ment of a national board of health will not change that usage in any respect except to permit a national board to compel a local board to do its duty.

There is not and there never will be an attempt to give any board of health the power to say what school of medicine any doctor must belong to, or to interfere in his choice of medicines or methods, provided only that he shall have given public proof that he possesses a minimal amount

of the medical knowledge of the age in which he lives. The common law, in case of suits for malpractice, merely demands that he shall have done the things usually approved by his school of medicine.

The assertion that the American Medical Association is seeking to control the choice of physicians by invalids, or those in charge of them, is entirely false, arises from ignorance or malice and should be denied at every opportunity. E. W.

#### POPULATION OF CITIES.

The increase of urban population is generally believed to be a menace to health, although London, the largest city in the world, has in recent years been showing a remarkably low death rate.

The Census Bureau has recently issued the following tables and it will be interesting to know whether the increase in population shown by many of these cities will be accompanied by an increase of the death rate.

TABLE I.—CITIES OF OVER 100,000 POPULATION.

CITY.	POPULATION.			PER CENT OF INCREASE.	
	1910	1900	1890	1900 to 1910	1890 to 1900
Total for cities of over 100,000 population . . .	20,303,047	15,199,375	11,470,364	33.6	32.5
Albany, N. Y. . . . .	100,253	94,151	94,923	65.0	10.8
Atlanta, Ga. . . . .	154,839	89,872	65,533	72.3	37.1
Baltimore, Md. . . . .	558,485	508,957	434,439	9.7	17.2
Birmingham, Ala. . . . .	132,685	38,415	26,178	245.4	46.7
Boston, Mass. . . . .	670,585	560,892	448,477	19.6	25.1
Bridgeport, Conn. . . . .	102,054	70,996	48,866	43.7	45.3
Buffalo, N. Y. . . . .	423,715	352,387	255,664	20.2	37.8
Cambridge, Mass. . . . .	104,839	91,886	70,028	14.1	31.2
Chicago, Ill. . . . .	2,185,283	1,698,575	1,099,850	28.7	54.4
Cincinnati, Ohio . . . . .	364,463	325,902	296,908	11.8	9.8
Cleveland, Ohio . . . . .	560,663	381,768	261,353	46.9	46.1
Columbus, Ohio . . . . .	181,548	125,560	88,150	44.6	42.4
Dayton, Ohio . . . . .	116,577	85,333	61,220	36.6	39.4

CITY.	POPULATION.			PER CENT OF INCREASE.	
	1910	1900	1890	1900 to 1910	1890 to 1900
Denver, Colo. ....	213,381	133,859	106,713	59.4	25.4
Detroit, Mich. ....	465,766	285,704	205,876	63.0	38.8
Fall River, Mass. ....	119,295	104,863	74,398	13.8	40.9
Grand Rapids, Mich. ....	112,571	87,565	60,278	28.6	45.3
Indianapolis, Ind. ....	233,650	169,164	105,436	38.1	60.4
Jersey City, N. J. ....	267,779	206,433	163,003	29.7	26.6
Kansas City, Mo. ....	248,381	163,752	132,716	51.7	23.4
Los Angeles, Cal. ....	319,198	102,479	50,395	211.5	103.4
Louisville, Ky. ....	223,928	204,731	161,129	9.4	27.1
Lowell, Mass. ....	106,294	94,969	77,096	11.9	22.2
Memphis, Tenn. ....	131,105	102,320	64,495	28.1	58.6
Milwaukee, Wis. ....	373,857	285,315	204,468	31.0	39.5
Minneapolis, Minn. ....	301,408	202,718	164,738	48.7	23.1
Nashville, Tenn. ....	110,364	80,865	76,168	36.5	6.2
Newark, N. J. ....	347,469	246,070	181,830	41.2	35.3
New Haven, Conn. ....	133,605	108,027	81,298	23.7	32.9
New Orleans, La. ....	339,075	287,104	242,039	18.1	18.6
New York, N. Y. ....	4,766,883	3,437,202	2,507,414	38.7	37.1
Oakland, Cal. ....	150,174	66,960	48,682	124.3	37.5
Omaha, Neb. ....	124,096	102,555	140,452	21.0	127.0
Paterson, N. J. ....	125,600	105,171	78,347	19.4	34.2
Philadelphia, Pa. ....	1,549,008	1,293,697	1,046,964	19.7	23.6
Pittsburg, Pa. ....	533,905	451,512	343,904	18.2	31.3
Portland, Ore. ....	207,214	90,426	46,385	129.2	94.9
Providence, R. I. ....	224,326	175,597	132,146	27.8	32.9
Richmond, Va. ....	127,628	85,050	81,388	50.1	4.5
Rochester, N. Y. ....	218,149	162,608	133,896	34.2	21.4
St. Louis, Mo. ....	687,029	575,238	451,770	19.4	27.3
St. Paul, Minn. ....	214,744	163,065	133,156	31.7	22.5
San Francisco, Cal. ....	416,912	342,782	298,997	21.6	14.6
Scranton, Pa. ....	129,867	102,026	75,215	27.3	35.6
Seattle, Wash. ....	237,194	80,671	42,837	194.0	88.3
Spokane, Wash. ....	104,402	36,848	19,922	183.3	85.0
Syracuse, N. Y. ....	137,249	108,374	88,143	26.6	23.0
Toledo, Ohio ....	168,497	131,822	81,434	27.8	61.9
Washington, D. C. ....	331,069	278,718	230,392	18.8	21.0
Worcester, Mass. ....	145,986	118,421	84,655	23.3	39.9

TABLE II.—CITIES OF OVER 250,000 POPULATION.

CITY.	POPULATION.			RANK.		
	1910	1900	1890	1910	1900	1890
New York .....	4,766,883	3,437,202	12,507,414	1	1	1
Chicago .....	2,185,283	1,698,575	1,099,850	2	2	2
Philadelphia .....	1,549,008	1,293,697	1,046,964	3	3	3
St. Louis .....	687,029	575,238	451,770	4	4	4
Boston .....	670,585	560,892	448,477	5	5	5
Cleveland .....	560,663	381,768	261,353	6	7	9
Baltimore .....	558,485	508,957	434,439	7	6	6
Pittsburg .....	533,905	321,616	238,617	8	11	12
Detroit .....	465,766	285,704	205,876	9	13	14
Buffalo .....	423,715	352,387	255,664	10	8	10
San Francisco .....	416,912	342,782	298,997	11	9	7
Milwaukee .....	373,857	285,315	204,468	12	14	15
Cincinnati .....	364,463	325,902	296,908	13	10	8
Newark .....	347,469	246,070	181,830	14	16	16
New Orleans .....	339,075	287,164	242,039	15	12	11
Washington .....	331,069	278,718	230,392	16	15	13
Los Angeles .....	319,198	102,479	50,395	17	34	44
Minneapolis .....	301,408	202,718	164,738	18	19	17
Jersey City .....	267,779	206,433	163,003	19	17	18

TABLE NO. III.

CITY.	Year of Census or Estimate.	Population.
1. London .....	1909	7,429,740
2. New York .....	1910	4,766,883
3. Paris .....	1906	2,763,393
4. Tokyo .....	1908	2,186,079
5. Chicago .....	1910	2,185,283
6. Berlin .....	1908	2,101,933
7. Vienna .....	1909	2,085,888
8. St. Petersburg .....	1905	1,678,000
9. Philadelphia .....	1910	1,549,008
10. Moscow .....	1907	1,359,254

Our geographies formerly said that Peking was the largest city in the

world, but now it is not even mentioned as one of the large cities.

#### THE CAUSES OF GENERAL PARE-SIS.

There once was a time, in ethical controversies, when a ship's captain was held morally blameless, even if his ship struck some rocky isle, pro-

vided he was sailing by the chart. It is a safe contention today, in maritime affairs, that any chart is a better navigator's guide than no chart.

Changing the conditions to fit the medical profession, doctors must have



theories in which they believe, as a basis for therapeutic action, and any good working theory is far better than no theory, even though it may later be proven untenable through the discovery of some non-charted medical facts.

For many years alcohol and syphilis have been considered the great causes of general paralysis of the insane.

Alcohol so unmistakably causes some forms of hardening of tissues that it has been assumed that it must be a cause of cerebral changes in general paresis, and perhaps it has. Ever since Fournier's time syphilis has had to stand sponsor for all manner of inexplicable degenerative changes in the central nervous system, and since the invention of the term "parasymphilitic diseases," cytological diagnosis and the Wassermann test, the weight of these burdens has increased.

These considerations are suggested by a somewhat recent report by Rudin of his observations among the native tribes of Algeria.

Among some of these tribes he found from 60 to 70 per centum of syphilis in all forms, and among the same people general paresis is practically non-existent. On the other hand in Japan the percentage of general paresis and syphilis is very high and that of alcoholism low.

These alleged facts go far to prove the correctness of Rudin's contention that general paresis is the result of the wear and tear of modern civilization acting upon nervous systems her-

editarily weak, and that alcoholism and syphilis are only incidental factors. The causal relation of hereditary influences to the pathologic changes in the muscular dystrophies and Friedreich's disease is so well established that great support may be drawn from these facts for Rudin's interesting observation.

This report will not, of course, change the minds or the treatment of all psychiatrists, and many a poor general parietic will still get vigorous anti-luetic treatment, and there may be much to justify the course. And meanwhile it will produce a state of mind in both doctor and patient unsurpassed by even that of the devotees of Christian Science or the Emmanuel movement.

Incidentally this report of Rudin will prove of very great value in directing attention to the necessity of rational methods in the education and bringing up of children, and of living generally. It is in such directions as this that doctors can exercise their great function of preventing disease. E. W.

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#### DEATH OF DR. T. B. DAVIS.

Dr. T. B. Davis, one of the best-known physicians of Arizona, died at the Mercy Hospital, Prescott, on the evening of Jan. 17th. He was a surgeon in the army and participated in all the Indian wars from 1860 to 1880. He was with Terry and Miles and Ward and Shafter. He was also with Crook and Lawton. He was known by Shafter and Lawton as the "Fighting

Doctor." He retired from the army in 1890 and since that time has been practicing his profession in Prescott, Ariz. He was a graduate of the Louisville Medical College and at the time of his death was 63 years old.

At their meeting on Feb. 18th, 1911, the Yavapai County Medical Society adopted the following resolutions:

"WHEREAS, Death has removed from the ranks of the medical profession of Arizona an old and highly respected member of this society, Thomas B. Davis, M.D., of Prescott, and

"WHEREAS, He was a pioneer physician of this Territory, the organizer and first president of this society, and an ex-president of the Arizona Medical Association, and

"WHEREAS, By his kindly nature, courtly manners, strict integrity, and high professional attainments, he has won the admiration, respect and friendship of his professional confreres throughout the whole Territory, therefore, be it

"RESOLVED, That in the death of Doctor Davis this society has lost an active and useful member, the medical profession a gentlemanly, scholarly and successful physician and the Territory a loyal, public-spirited citizen. And be it further

"RESOLVED, That the secretary be instructed to spread these resolutions on the minutes of this society,

"That a copy be sent to the relatives of the deceased, and copies furnished the Arizona Medical Association, American Medical Association, and the daily press.

"J. R. McNALLY,

"R. N. LOONEY,

"W. W. ROSS,"

Committee

## ENTEROPTOSIS.

The symposium on enteroptosis at the St. Louis meeting of the American Medical Association (The Journal A.M.A., November 26, 1910,) indicates that the profession is not fully agreed concerning it, although there is an interesting argument between Ochsner and J. H. Musser concerning treatment of the condition.

R. R. Smith's paper is an excellent review of the literature and report of his own work in an investigation of the causes and development of the condition. The illustrations from photographs show in an admirable way the shape of the body and the postures which tend toward the development of enteroptosis, and will be of great value in directing attention to these factors in the course of general examination, and thus give a needed impetus to attempts to arrest their development at a time before they have become factors of consequence, and, therefore, are readily amenable to management. These pictures also call attention to the wisdom of Osler's practice of insisting in examinations upon whatever exposure of the body is needed to insure a clear idea of the general physical condition and appearance of the patient.

But it must be remembered that these bodily shapes and postures do not themselves cause ptoses of the abdominal viscera, that they are merely the sequences of forces which have been acting for a long time.

Whether one of these cases is congenital or acquired is a question of

mere academic interest, and does not influence the treatment in any way.

Ochsner believes that in most cases ptoses of the abdominal organs do not cause the disease with which the invalid suffers, and that in those cases in which they do cause such disease, surgical measures often fail to relieve the conditions, and may even lead to a state worse than that which they correct. In operating he follows Blake's rules.

It must be determined that: 1. The diseased conditions are really due to the enteroptosis; 2. It must be reasonably clear that the enteroptosis cannot be relieved without operation; 3. It must be reasonably certain that the conditions will be relieved by the operation.

Many years ago Martin, of Berlin, contended that there are many women who are invalided by pelvic conditions which are remediable by either general or surgical measures, who because of the necessities of their lives cannot afford to wait for the slower recovery which general and non-operative treatment can secure. This principle might occasionally be added to Blake's rules with advantage. Ochsner says that in his own clinic ptosis of the transverse colon is present in 20 per cent. of cases in which it has no connection with the disease for which relief is sought. He thinks that relief of abnormal intra-abdominal pressure is the most important thing to be secured in these cases.

Musser believes that improper training in childhood and bad habits

of living then and in adult life, which result in poor general health, are the most important factors in causing enteroptosis. In an analysis of 100 cases out of a total of 600 in his own practice 37 per cent. had always had poor health. He believes that the intestinal toxæmia which are found in these cases are primarily due to neuratic conditions, and that anything which tends to increase the neurosis, and operations often do, tends to increase the toxæmias. He makes an urgent plea for the recognition in childhood of the general conditions which are characteristic forerunners of enteroptosis, and believes that every other consideration should be made secondary to the establishment of the best general vigor in children who show this disposition.

It is only fair to the gentlemen who discussed these papers to say that they favored operative measures more than Ochsner and Musser do, but the burden of proof still lies with them.

These papers and their discussion are worthy of repeated and careful study.

E. W.

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#### THE AMERICAN ACADEMY OF MEDICINE.

The XXXVI annual meeting of the academy will begin in Los Angeles Friday evening, June 23rd, with a public session, at which Dr. Charles L. Sheldon of Madison, Wis., and President David Starr Jordan of Stanford University will deliver the addresses. The sessions of Saturday, the 24th, will be devoted to the topic "To What Extent Are Suicides and Other Crimes



Against the Person Due to Suggestion from the Press?"

It is stated that the annual average of murders during the last twenty years is 6597, in certain years rising to nearly 11,000; but that our prisons hold only about 11,000 convicted murderers. Our convictions are but one and three-tenths (1.3) per one hundred murders. In Germany convictions equal ninety-five in one hundred murders. To the crimes of rape and murder of the unborn we are even more indifferent than we are to registration of the birth of a human being.

Since our darkest period, the Civil War, there have been over 150,000 suicides, 60,000 within ten years. According to the census the death rate from this in 100,000 is as follows:

1902, 12.7; 1903, 13.9; 1904, 14.8; 1905, 16.1; 1906, 14.3; 1907, 16.2; 1908, 18.5; an increase of practically fifty per cent. in seven years.

Monday, June 26th, the principal topic will be, "Should the American Profession Establish Two Degrees in Medicine?" The two degrees in medicine in England, Bachelor of Medicine and Doctor of Medicine, apparently wholesomely stimulate younger members of the profession to continue scientific studies in definite directions, supplementing their practice. American medical writers have recently advocated the degree of Doctor of Philosophy as a suitable recognition of scientific graduate work by physicians.

## EDITORIAL NOTES

Dr. H. G. Cates, Los Angeles, has removed his office to the Stimson building.

Dr. H. G. Rosenberger of Whittier, who has been very ill, is now convalescing.

Dr. C. E. Metcalf has been appointed medical examiner of the schools of South Pasadena.

Dr. T. Proctor Hall, 301 Davie St., Vancouver, British Columbia, has been taking his vacation in Los Angeles.

We have received a reprint: *An Improved Uterine Clamp and Retractor*, by Dr. A. Miles Taylor, San Francisco.

Dr. J. H. Franklin of Guadalupe has been appointed county physician for the north section of Santa Barbara county.

Dr. J. D. Jones of Murdock, Neb., while taking his vacation in Los Angeles, caught a 380-lb. fish at Redondo beach.

Dr. Emil Francis Tholen has located in Tropico, a suburb of Los Angeles. Dr. Tholen graduated from Rush, class of 1903.

Dr. S. A. Ellis, who has been located at Azusa for the last fifteen years, has now opened an office in Glendora.

Dr. and Mrs. Percival Gordon White have returned from their honeymoon trip and are at home at the Hotel Alvarado.

Dr. Sumner J. Quint of Los Angeles now has his offices on the fourth floor of the W. P. Story Bldg., 6th and Broadway.

At a recent meeting of the San Bernardino County Medical Society Dr. W. B. Power of Redlands read a paper on "Immunity."

Dr. D. C. Strong of San Bernardino was recently operated on for the second time for gall stones. At the last report he was doing well.

A reorganization of the Board of Health of Santa Barbara occurred recently and Dr. David Conrad was appointed city health officer.

Mrs. Whitelaw Reid, wife of the American ambassador to Great Britain, is the moving spirit in erecting a new St. Luke's Hospital in San Francisco.

Dr. Daniel McSwegan of San Diego, who has been away most of the time for several years, has returned to his first love and is now practicing with headquarters at the Brewster Hotel.

Dr. E. Payne Palmer, formerly of Phoenix, has moved to Los Angeles, where he will practice his profession. Dr. Palmer has just returned from two years' study in Europe.

Dr. Thomas L. Rogers of Long Beach, and Drs. Joseph L. Derrick and Lulu H. Peters have recently been elected members of the Los Angeles County Medical Association.

Dr. I. R. Bancroft of Los Angeles recently lectured before the Anti-Tuberculosis League at Redlands. His lecture was "Observations on Health and Sanitation" and was profusely illustrated with lantern slides.

Dr. J. A. Andrews of Santa Barbara will join Dr. Wilfred Grenfell as an active worker in the Mission of Deep Sea Fishermen. Dr. Andrews is an oculist and will give his professional services for six months in aiding Dr. Grenfell.

Dr. Oscar Mayer, formerly of French Hospital, San Francisco, and lately of

the staff of the Government Hospital of the city of Mexico, is located in Los Angeles with offices in the Consolidated Realty Bldg., corner of 6th and Hill Sts.

Dr. Frederick T. Wright of Douglas spent part of February in Washington, D. C. Dr. Wright appeared before the Senate Committee on Territories, advocating the changing of the county seat of Cochise county from Tombstone to Douglas.

We have received the following reprints from the author, Dr. Rexwald Brown, Santa Barbara: Obstruction of Bowel—Dietl's Crisis; Cholelithiasis Simulating Appendicitis—Dislocation of Liver; Operative Treatment of Simple Fractures.

Dr. Geo. Dock, the eminent professor of medicine of Washington University, St. Louis, has been spending the winter in Los Angeles and vicinity. The Doctor is not very rugged, but has made a great gain during the winter in this warm climate.

Following the monthly meeting of the Los Angeles County Medical Association Feb. 17th, the members adjourned to the Receiving Hospital where they partook of a buffet luncheon and inspected the new institution. Dr. C. Zerfing, chief police surgeon, did the honors.

Owing to a report recorded in the December Southern California Practitioner that Dr. D. F. Royer of Orange was dead he has been besieged, through letters addressed to "The Estate of D. F. Royer," to purchase tombstones until it has become monotonous. The doctor vehemently denies his death.

Sweden has now become possessed of its third, and the ancient University of Lund of its first woman professor in Miss Helena Borelius, doctor of philosophy, who lectures on modern

literature. Miss Borelius is a daughter of Prof. Borelius and has published several pamphlets for the advancement of the cause of women's suffrage.

The Louisiana State Board of Health car will probably be brought to Los Angeles for demonstration during the meeting of the A. M. A., beginning June 26th. Dr. W. A. Evans, health officer of Chicago and chairman of the Medical and Public Health Committee of the A. M. A., has written the State Board of Health of Louisiana making this request.

Dr. Wm. Fawcett Smith of Calexico has been very busy caring for men who were wounded in the Mexicali fight with the insurrectos. Dr. Smith has had many thrilling experiences, in our Civil War and in the Spanish-American War and as head of the Sanitary Department in Porto Rico and in the Sanitary Department along the Panama Canal.

President Barlow has made what we believe will prove an acceptable innovation in the proceedings of the Los Angeles County Medical Association. Dr. Barlow has arranged for a series of papers on the history of medicine. Dr. Charles L. Allen has Pre-Hippocratic Medicine and Surgery assigned to him, while Dr. Bernhard Smith will take Hippocrates.

One of the most interesting lists we have seen of the occupations of college graduates is that compiled at Yale for 2,243 men graduated from that institution between the years 1897 and 1902. Law, 718; finance, 320; education, 261; medicine, 203; ministry, 185; farming and politics, 170; merchants, 166; journalists, 77; engineers, 69; miscellaneous, 74.

A practice in one of Southern California's most delightful towns is offered for \$1500. This pays for office and residence and office furniture

Rent of house, including office, \$18 per month. Cash receipts of \$3000 per year can be readily increased. The doctor refers prospective purchasers to Dr. Howard B. Gates, 507-9 Consolidated Realty Building, Sixth and Hill streets, Los Angeles.

On the evening of Feb 8th Dr. and Mrs. W. Jarvis Barlow gave a reception at their home to the faculty, students and alumni of the Los Angeles Medical Department of the State University of which Dr. Barlow is dean. Assisting Mrs. Barlow were Mesdames Kate Vesburg, W. W. Beckett, H. Bert Ellis, Dudley Fulton and G. H. Kress. There was a large attendance and it was a delightful affair.

Dr. John B. Deaver has been elected professor of clinical surgery in the medical department of the University of Pennsylvania. This shows a new spirit in the university's management. It reminds us of the election of W. W. Keen as professor of surgery in Jefferson Medical College. Dr. Keen's election was delayed for years by the Pancoast family influence.

A physician in general practice in one of the most flourishing and delightful sections of Southern California wishes to sell a half interest or entire practice, together with well furnished, comfortable cottage and office equipment; half interest \$1500, or total interest \$2500. Practice worth at least \$3000 cash per annum and may be materially increased. Address Southern California Practitioner, 1414 South Hope St., Los Angeles.

The American Urological Association, which has, heretofore, always met at the same place and time as the American Medical Association, has side-stepped Los Angeles. The Pacific Coast branch and the San Francisco branch of the American Urological



Association and Pacific Coast Urologists personally have protested by wire and letter, but with no avail. The Pacific Coast Urologists are preparing to meet in Los Angeles and will present their papers all the same.

Dr. W. S. Smith of Santa Monica died Feb. 19th, aged 32 years. Dr. Smith was a graduate of the University of Southern California, class 1902. He was for two years assistant physician at the Los Angeles County Hospital. He then went to Arizona, where he practiced in Prescott for three years and held the office of county physician and was a member of the Territorial Board of Examiners of the Insane and for two years was superintendent of the County Hospital. Dr. Smith was one of the best known physicians in the Santa Monica Bay district and was highly esteemed by a large circle of friends.

Dr. Mary E. Bates of Denver is author of a bill concerning marriage, which is likely to pass in the Colorado Legislature this session. The bill provides that each applicant for marriage license must file with the county clerk an affidavit of at least one duly licensed physician, other than the person seeking the license, showing that the contracting parties are not idiotic, imbecile or of unsound mind or under guardianship as persons of unsound mind, epileptic, insane, narcotic drug habitues, nor habitual drunkards, nor afflicted with a transmissible tubercular or venereal disease. The bill also has several other sanitary provisions. Dr. Eates is also the author of eight other bills of a sociological nature that have been introduced into the Colorado Legislature, one of which relates to the limit and control of prostitution.

The following have recently been elected members of the Los Angeles County Medical Association: Dr. John

C. Hollister, Northwestern, 1900, Los Angeles, Cal.; Dr. Daniel B. McCann, Rush, 1890, Los Angeles, Cal.; Dr. Harvey L. Thorpe, Rush, 1909, Los Angeles, Cal.; Dr. William Wenzlick, Harvard, 1888, Los Angeles, Cal.; Dr. Cynthia A. Skinner, Northwestern, 1890, Los Angeles, Cal.; Dr. Philip S. Chancellor, P. & S. Balt., 1901, Pasadena, Cal.; Dr. Etta Gray, Cooper, 1906, Los Angeles, Cal.; Dr. C. L. Lowman, U. So. Cal., 1907, Los Angeles, Cal.; Dr. E. H. Thompson, Rush, 1903, Burbank, Cal.; Dr. Addie B. Allen, P. & S., U. S. C., 1910, Los Angeles, Cal.; Dr. H. A. Huntoon, C. of M., U. S. C., 1908, Los Angeles, Cal.; Dr. A. F. Huntoon, Mo. Med. Coll., 1881, Los Angeles, Cal.; Dr. J. P. Le Fevre, State Univ. Cal., 1881, Venice, Cal.; Dr. Harvey Smith, C. of M., U. S. C., 1906, Los Angeles, Cal.; Dr. R. I. Jewell, Iowa, 1892, Los Angeles, Cal.

A Los Angeles daily says:

Dr. L. B. Stookey of Los Angeles has driven his car thousands of miles and has climbed some of the steepest hills in California. One of his great delights is to take the machine into the highest mountains where the roads are rough and enjoy the scenery of the far-away hills.

One of the most famous trips was to Idyllwild, Strawberry Valley. In order to reach this interesting country, he had to climb over a mountain pass more than a mile high. He says his car made good all the way and he had no trouble even with the carburetor. The engine took the mixture at all altitudes and he did not touch his machine from the moment he started until the tour was over.

He is one of the most enthusiastic of motor car owners and has traveled over almost every road of Southern California with his four-cylinder touring car. He says there is no sport like driving an automobile far away

from the city streets. He does not fear to leave a garage hundreds of miles behind. He knows the car will make good, he says, and he is confident of returning safe and sound. He has never had a mishap.

Just as we go to press we learn that Dr. Harry Oscar White, Professor of Anatomy in the Medical Department of the University of Illinois, has accepted the chair of Anatomy in the College of Physicians and Surgeons of the University of Southern California. Dr. White is an able teacher and will remove from Chicago to Los Angeles in time to begin work in the U. S. C., in September. He was led to this change on account of the delicate health of a member of his family.

The Los Angeles Times of February 22 says: "The local Executive Committee of the American Medical Association has just been notified that the western roads have made a rate of \$62.50 round trip from Chicago to Los Angeles by any direct route, or by way of San Francisco. From St. Louis, Memphis and New Orleans the rate is \$57.50; Missouri River gateways (Omaha to Kansas City inclusive), \$50; St. Paul and Minneapolis, \$63.50. Dates of sale are June 5, 6, 10 and 22 inclusive. The final return limit is September 15. The American Academy of Medicine will hold its opening meeting in this city June 23.

This meeting will be open to the public and President David Starr Jordan of Stanford will deliver the address. The President's reception will be one of the chief society functions. Dr. W. Jarvis Barlow, president of the Los Angeles County Medical Association, is chairman of the committee, having this reception in hand. It will be at the Shrine Auditorium and will close with a dance and buffet supper. The morning of June 23 will be devoted to an automobile ride, taking in the high points in Los Angeles and Pasadena. At noon a Spanish barbecue will be served in the Busch sunken gardens, Pasadena. The waiters will all be in Spanish costume and several bands will furnish music. At 2 p. m. the guests will be taken to the tournament amphitheater where the chariot races will be repeated for the visiting doctors and their families. At 7 p. m. Friday evening a trolley excursion will be given that will include Hollywood, Santa Monica, Ocean Park and Venice. At each of the seaside resorts the guests will be entertained with music and refreshments. Saturday, July 1, will be "Long Beach Day." The Long Beach Chamber of Commerce and the Long Beach Medical Society will take the visitors to San Pedro by electric cars and then a delightful ride on the ocean to Long Beach, where luncheon will be served.

## BOOK REVIEWS

**BISMUTH PASTE IN CHRONIC SUPPURATIONS: ITS DIAGNOSTIC IMPORTANCE AND THERAPEUTIC VALUE** By Emil C. Beck, M.D., Surgeon to the North Chicago Hospital, Chicago, Ill., with an introduction by Carl Beck, M.D., and a Chapter on the Application of Bismuth Paste in the Treatment of Chronic Suppuration of the Nasal Accessory Sinuses and the Ear, by Joseph C. Beck, M.D., with Eighty-one Engravings, Nine Diagrammatic Illustrations, and a Colored Plate. St. Louis: C. V. Mosby Company, 1914.

The Mosby Company of St. Louis are publishing a series of small books

on very timely subjects and presenting them in a most attractive form for easy and ready reference. In many respects these monographs are more desirable than the more pretentious systems because they are the work of one man; they are concise, compact and best of all are strictly up to date, not languishing many months in the editorial office. Lastly, and perhaps

most important, they are issued at a moderate price and the busy practitioner buys and pays for just what he wants in each treatise. This book by Beck is a monograph on the uses of bismuth paste, written for the general practitioner who is not sufficiently familiar with the method to apply it to the best advantage.

The book is well printed on excellent paper and has eighty-one engravings, a colored plate and diagrammatic illustrations.

Beck makes extensive use of bismuth paste in diagnostic work and many times in his experience errors in diagnosis have been cleared up by its use.

The profession very generally recognizes this in the larger cities, but as yet the mass of practitioners do not seem to have learned its value. Also must the doctors away from the centers recognize that this method is not to be used to the exclusion of all other scientific methods, which have been accepted the world over in the treatment of chronic suppuration.

If it comes to be well recognized that each case of chronic suppuration must be analyzed by itself and its appropriate treatment decided upon, and bismuth paste not used in a routine way, the latter method will no doubt find its place as a permanent therapeutic aid with its own limitations; in other words, it is not a cure-all.

After the two chapters—bismuth paste in anatomical diagnosis and diagnostic errors revealed by bismuth paste injections—the book presents a series of chapters on the use of the paste in various bone diseases and sinuses, in fecal fistulae, in sinuses following abdominal and kidney operations, in empyema and lung abscesses and in cold abscesses; followed by chapters on the limitations and causes

of failure, bismuth paste poisoning and its prevention and its use in chronic suppurative diseases of the nose, accessory sinuses, ears and mastoid process; concluding with a chapter on the use of bismuth paste in dentistry. In a word, the book is a full and complete account of the method of Beck for the use of bismuth paste and it is well and carefully written, fully illustrated, and should be in the hands of all active practitioners.

W. A. E.

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THE SURGERY OF CHILDHOOD. INCLUDING ORTHOPAEDIC SURGERY. By De Forest Willard, A.M., M.D. (Univ. of Pa.), Ph.D., Professor of Orthopaedic Surgery University of Pennsylvania; Surgeon (25 years) to the Presbyterian Hospital; Surgeon-in-Chief Weidner Industrial School for Crippled Children; Ex-President American Surgical Association, American Orthopaedic Association, Philadelphia Academy of Surgery, Philadelphia County Medical Society; Ex-Chairman Surgical Section American Medical Association, Fellow Philadelphia College of Physicians, etc. With 712 illustrations, including 17 in Colors. Philadelphia and London: J. B. Lippincott Company, 1910.

Until within a very few years books devoted to the surgical diseases of childhood were very few; very few indeed in our country, and but one or two in France, England and Germany. This, however, is rapidly changing and the United States is keeping abreast of the newer literature by such books as this under review.

All of us engaged in pediatric surgery strive to show the general practitioner the importance of the early recognition of the diseases of childhood, since irreparable damage often follows delay in investigation, inaccurate diagnosis and inappropriate treatment or as is often the case, no treatment at all.

Willard is fully in accord with this idea and makes it the principle object of the book.

He has endeavored by long experience to select and present methods of



diagnosis and treatment that will prove of service.

The illustrations are in the main from the author's practice and the average results obtained are based upon a large series and positive statements are not made upon an experience of a single case.

While Willard recognizes the supreme importance of a practical clinical examination of each patient, he also strongly endorses the use of instruments of precision and pays tribute to the value of a well equipped X-ray laboratory and the laboratories of pathology, bacteriology and physiologic chemistry, but fortunately he considers their findings as additional or corroborative proof, only, in the diagnosis. He has this to say and we emphasize it strongly: "In addition to research and investigation the surgeon of the present day needs to learn that accurate cerebration is required to interpret and apply the results obtained by any or all of the various aids to the understanding of disease."

The author very wisely does not endorse any of the more radical, I almost said spectacular, methods of treating hydrocephalus. I have never seen any benefit result from Keen's suggestion of deep tapping upward and inward to avoid the basal ganglion, nor has tying off one or both carotids, continuous drainage into the tissues of the neck or scalp, draining the ventricle into the subarachnoid space, or draining the spinal canal into the postperitoneal connective tissue accomplish anything at all in my experience. In other words, hydrocephalus is not as yet amenable to surgical treatment.

The few lines devoted to tonsillar hypertrophy and adenoids are totally inadequate and of little value; they tell the student nothing and are too rudimentary for the practitioner. I

know of no condition in childhood that is more important than the correct treatment of diseased tonsils and the proper removal of the tonsils and adenoids.

The important subject of otitis media and interna and mastoiditis is dismissed in three lines on page 58.

The chapter on surgery of the neck and chest is valuable and carefully prepared; it considers not alone the usual diseased states, but also the more unusual ones as branchial cysts, congenital cervical fistula, patent thyroglossal duct, hygroma and status lymphaticus.

Appendicitis is carefully considered as it presents itself in young life, varying in some particulars from the disease in adults. This entire chapter is to be commended with the exception of the few lines on page 151 devoted to infantile hypertrophic stenosis of the pylorus in which Hahn's or Loreta's stretching of the pylorus by invaginating the wall and dilating the orifice; in a word, divulsion, is sometimes advised, saying also that posterior gastrojejunostomy, pyloroplasty or pylorotomy may be done, whereas the overwhelming consensus of opinion is that posterior gastrojejunostomy is the only operation that is to be endorsed, and offers the child the best chance to reach healthy adult life.

The chapter on the surgery of the genito-urinary organs is good and after a short chapter on burns, frost bites and boils it is followed by the piece de resistance, the chapter on orthopedic surgery and the constitutional diseases productive of deformities.

Forty pages are devoted to fractures and within this rather limited space the subject is clearly presented in a manner that is of distinct value to the general practitioner.

The two hundred and twelve pages in which Willard has presented the subject of tuberculosis of joints and bones and related conditions, constitute perhaps the most valuable part of the book. The matter is carefully prepared, well and sensibly illustrated, and will prove of value both to the medical and surgical pediatricist.

I wish specially to commend the chapter on infantile spinal paralysis, particularly the twenty-four pages that relate to the restoration of function, the prevention of deformity and the operative treatment. As one proceeds with the reading of this book he becomes convinced of the fact that it is indeed a surgery of childhood where one may find recorded all the usual surgical conditions and many of the rare and unique states that sometimes demand surgical interference in childhood.

WILLIAM A. EDWARDS.

PELLAGRA. By Dr. A. Marie, Physician to the Asylums, Department of the Seine, Editor-in-Chief, Archives de Neurologie, and Director of the Laboratory of Pathological Psychology, Ecole des Hautes Etudes, Paris. With Introductory Notes by Professor Lombroso. Authorized Translation from the French. By C. H. Lavinder, M.D., Passed Assistant Surgeon U. S. Public Health and Marine Hospital Service; and J. W. Babcock, M.D., Physician and Superintendent State Hospital for the Insane, Columbia, S. C. With Additions, Illustrations, Bibliography and Appendices. Price, \$2.50. 1916: The State Company, Columbia, S. C.

The preface for this work was written at Turin, Italy, by Professor C. Lombroso a short time before his death. Lombroso says the two paramount preventive measures are the drying of Indian corn and the exclusion from food of all spoiled grain. Since these steps have been adopted on a large scale the number of fatal cases of pellagra have shown a great decrease.

Lombroso pictures the pellagrins as follows:

Pitiable wrecks of humanity, with eyes fixed and glassy, with pale and

sallow faces and arms fissured and scarred as by a burn or large wound. You would see them advancing with trembling head and staggering gait like persons intoxicated or, indeed, as though impelled by an invisible force, now falling on one side, now getting up and running in a straight line like a dog after its quarry and now again falling and uttering a senseless laugh or a sob which pierces the heart—such are the pellagrines, poisoned by the toxins of spoiled Indian corn.

The author says unreservedly: Alterations in corn are the cause of pellagra. The appearance of pellagra in Europe goes back to 1720, the epoch of the introduction in corn planting. The name pellagra is derived from *pelle*—skin, and *agra*—rough. In Roumania pellagra has appeared in consequence of the continued use of mouldy corn. In 1817 the hospital for the insane in Milan, Holland, contained 500 patients. In two-thirds of them insanity was due to pellagra.

The first case in the United States was reported by Dr. John P. Gray, Utica, New York. It is believed that there are now over 3000 cases scattered through thirty States—the great majority of them in the Southern States. While Lombroso and other Italians are so positive that pellagra is due to mouldy corn, many authorities in Great Britain and America are skeptical.

Recently, says the author, there has been formed a British commission for the study of pellagra, and Sambon was sent to Italy to try to establish his views on the etiology of the disease.

Sambon's theory has been worked out much more in detail than when first presented in 1905, and has attracted much serious attention. His work in Italy, largely of an epidemiological nature, has greatly strengthened him in his belief in the accuracy

of his theory and he feels confident of its ultimate proof.

Succinctly expressed, this theory in its main features is as follows, the details having been kindly furnished by Doctor Sambon:

Pellagra is not due to maize, either good or bad, because—

1. It is found in places where maize is neither cultivated nor eaten.

2. It is absent from many places where maize is the staple food of the population.

3. It has in many places either decreased or become more prevalent without any change in the food of the people.

4. Its constant and peculiar distribution does not agree with the very irregular and ever-changing distribution of spoiled maize.

5. In over a century and a half, since the maize theory was first suggested, no one has been able to prove it.

The belief that the disease has everywhere followed the introduction of corn cultivation is unfounded. Pellagra was first recognized as a specific disease in the beginning of the eighteenth century, but this does not prove that it was not prevalent long before that time.

Pellagra is a parasitic disease, because:

1. For years the person affected may present some seasonal recurrences, which can only be explained by a parasitic agent with alternating periods of activity and latency.

2. It shows a constant and characteristic topographic distribution.

3. It shows a definite seasonal incidence.

4. Its symptoms, course, duration, morbid anatomy, as well as its therapy, are similar to those of parasitic diseases.

5. Of two places, almost contiguous, one may be affected, the other not.

Pellagra is an insect-borne disease because:

1. It is limited, like malaria, sleeping sickness, etc., to rural places and more especially to the vicinity of certain bodies of water.

2. It has a definite seasonal incidence—spring and autumn.

3. It affects, to a large extent, a certain class of people—the field laborers.

4. It is not contagious and neither food nor water can account for its peculiar epidemiology.

5. Within its endemic centers it affects all ages and frequently whole families.

6. Outside its endemic centers only adults who have visited the infection areas present the disease and frequently only one or two members in a family are affected.

Pellagra is conveyed by *Simulium* reptsans because:

1. *Simulium* is found in the torrents and swift running streams of all pellagra districts.

2. *Simulium* has the peculiar seasonal distribution of pellagra (spring and autumn).

3. *Simulium* is found only in rural districts. It is unknown in towns and villages. It does not enter houses.

4. *Simulium* explains most admirably the peculiar limitation of the disease to field laborers.

5. *Simulium* is the only blood-sucking insect which the British field commission has found in its visits to numerous pellagrous districts in Italy.

6. *Simulium* reptsans, like *anopheles maculipennis*, has a world-wide distribution and explains the wide distribution of pellagra. It is found wherever pellagra is found.

7. *Simulium* causes epizootics in animals in America and in Europe.

8. Professor Mesmel has found a protozoal organism in *simulium*.



The judicial mental attitude which American investigators have so far shown with regard to the etiology of pellagra is certainly to be commended in the present unsatisfactory status of this question. The etiology of pellagra is still an open question.

This interesting volume goes thoroughly into the clinical picture, the prophylaxis and treatment of this terrible disease.

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HYGIENIC LABORATORY—BULLETIN NO. 72. November, 1910. I. Report on an Outbreak of Typhoid Fever at Omaha, Neb. (1909-1910). By L. L. Lumsden. II. The Water Supply of Williamson, W. Va., and Its Relation to an Epidemic of Typhoid Fever. By W. H. Frost.

HYGIENIC LABORATORY—BULLETIN NO. 71. January, 1911. 1. Some Known and Three New Endoparasitic Trematodes from American Fresh-water Fish. By Joseph Goldberger. 2. On Some New Parasitic Trematode Worms of the Genus *Telorchis*. By Joseph Goldberger. 3. A New Species of *Athesmia* (A. Foxi) From A Monkey. By Joseph Goldberger and Charles G. Crane.

PUBLIC HEALTH BULLETIN NO. 42. December, 1910. Disinfectants, Their Use and Application in the Prevention of Communicable Diseases. By Thomas B. McClintic, Passed Assistant Surgeon, United States Public Health and Marine Hospital Service. Prepared by Direction of the Surgeon General, Treasury Department, Public Health and Marine Hospital Service of the United States.

Each of these bulletins gives valuable data and may be secured by addressing Surgeon-General Walter Wyman, Washington, D. C.

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A MANUAL OF CYSTOSCOPY. By J. Bentley Squier, M.D., Professor of G-U Surgery, New York Post-Graduate Medical School and Hospital; Surgeon to Work House Hospital and Home for Aged and Infirm, Department of Charities and Corrections, New York, Consulting Surgeon, New York Neurological Hospital; Fellow American Association of G-U Surgeons; Fellow New York Academy of Medicine. And Henry G. Bugbee, M.D., Instructor in G-U Surgery, New York Post-Graduate Medical School and Hospital; formerly Surgeon in Chief, Vassar Brothers Hospital, Poughkeepsie; Fellow New York Academy of Medicine. With Twenty-six Original Plates, Eighteen of which are Colored. Octavo, Flexible Leather, \$3.00, net. (Sent prepaid on receipt of price.) Paul B. Hoeber, Medical Publisher, Bookseller and Importer, 69 E. 59th Street, New York. 1911.

This is the latest word on cystoscopy and will save the beginner in the use of the cystoscope and the patient much time and anxiety.

The statements are concise, and the technique described in detail is that which the authors have found most satisfactory. While the essentials of a working knowledge of the instruments are set forth, the book has been kept within small compass.

The feature of anatomical diagrams accompanying the principal bladder landmarks, as depicted through the cystoscope, will be of great value to the beginner, and the colored plates of intra-vesicle lesions are particularly accurate, having been produced under the direct observation of the artist. The mechanical workmanship of the book, including paper, type, binding and illustrations, is a delight to the eye.

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GOLDEN RULES OF DIAGNOSIS AND TREATMENT OF DISEASES. Aphorisms, Observations and Precepts on the Method of Examination and Diagnosis of Diseases with Practical Rules for Proper Remedial Procedure. By Henry A. Cables, B.S., M.D., Professor of Medicine and Clinical Medicine of the College of Physicians and Surgeons, St. Louis. Price \$2.50. St. Louis: C. V. Mosby Company, 1911.

The author and publisher unite to give the busy practitioner that which will answer promptly many puzzling questions in the trying times that all physicians meet.

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A MANUAL OF DISEASES OF THE NOSE, THROAT AND EAR. By E. Baldwin Gleason M.D., Professor of Otology at the Medical-Chirurgical College, Philadelphia. Second revised edition. 12 mo. of 563 pages. profusely illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Flexible Leather. \$2.50, net. W. B. Saunders Company, Philadelphia and London.

The specialist is a boon to the profession and to the public, but frequently the general practitioner does an injustice to himself and causes excessive expense to his patient by referring a case to the specialist that he might properly have attended himself. The volume before us supplies students and general practitioners with the essential facts of Rhinology.

Laryngology and Otology in a concise form. Methods of treatment are given in a clear, simple manner, and at the end of the book is a collection of nearly two hundred useful formulas. In that *bête noir* of the general practitioner—the terrible pain of acute Otitis Media—the author begins with one-third gr. calomel combined with 5 gr. of bicarbonate of sodium every hour for six hours. If the pain is severe he applies one leech in front of the tragus, one on the mastoid close to the auricle and one just beneath the auricle. Follow with application of dry heat and one or more drops of 4 per cent. solution cocaine in the auditory canal. Sometimes a hypodermic tablet of morphia and atropine dissolved and dropped in the auditory canal is more efficient than the cocaine. Use the same dosage by auditory canal that you would administer hypodermically.

THE PREVENTION OF SEXUAL DISEASES. By Victor G. Vecki, M.D., Ex-President San Francisco German Medical Society, Member American Urological Association, American Medical Association, California State Medical Society, etc., with Introduction by William J. Robinson, M.D. The Curtis and Givins Company, 15 Mt. Morris Park, West New York, 1910.

Dr. Vecki is very continental in his ideas. In the introduction he says: "We still speak of illicit intercourse as if it were a crime very much akin to murder or burglary. We still advise absolute continence which we know is neither feasible nor, from a hygienic point of view, desirable." In the chapter on Individual Prophylaxis he says, "Metchnikoff and Roux, after experimenting on many apes and a few human beings, came to the conclusion that a 20 per cent. calomel ointment, if applied within a few hours after a suspicious copulation, will absolutely prevent syphilis." Most of the soldiers and sailors in the

armies and navies of the world are now regularly provided with this ointment. Before the act the parts and surroundings, including the whole scrotum, should be liberally anointed with the calomel ointment. After the act urinate and then drop in the meatus a few drops of a 2 per cent. solution of nitrate of silver.

In conclusion Dr. Vecki says: "The damage done to humanity by contagious sexual diseases is enormous.

"The question of prevention of venereal diseases has not received and is not receiving proper attention, though it would pay if the time and efforts of the best minds were devoted to its study.

"Hypocrisy and prudery have muddled the venereal, the sexual and all other social questions. The naked truth hurts sometimes, but it is our only salvation.

"Instruction means teaching of truth. To teach lies is no instruction. Teaching lies, though done so extensively, has never advanced humanity. The truth must be told to everybody; to the children, to begin with.

"No one can be safe from venereal infection unless he knows all about it and is willing to use the knowledge to protect himself."

MODERN MANAGEMENT: THE MANAGEMENT OF DISEASE WITH MEDICAL AND NON-MEDICINAL REMEDIES. By Eminent American and English Authorities. Edited by Robert Amory Hare, M.D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia; Physician to the Jefferson Hospital, Author of "A Text-book of Practical Therapeutics," "A Text-book of the Practice of Medicine," etc.; assisted by H. R. M. Landis, M.D., Medical Director to the Philips Institute for Tuberculosis and Physician to the White Haven Sanatorium. In two very handsome octavo volumes, comprising 1200 pages, with numerous engravings and full page plates. Price per volume in cloth, \$6.00, net, half morocco, \$7.50, net. Lea & Febiger, Philadelphia, Philadelphia and New York, 1911.

The first volume of Modern Medicine was reviewed in the *Southern California Practitioner* for January,

1911, and here two months later is the concluding volume. This gives a harmonious, really modern treatment complete brought down to date. The opening chapter, **Diseases Due to Parasitic Infection**, occupies 89 pages. In the 50 pages by Dr. Wm. S. Gottheil of the Post-Graduate Medical School of New York on the treatment of Syphilis, "606" is given due attention, the author having used is to considerable extent. "The preparation is a proprietary one and oxidizes very rapidly. The dose administered subcutaneously between the shoulder-blades, was, in almost all cases, 0.6 in about half an ounce of fluid. There is necessarily a good deal of pain; the first night was almost always sleepless, and sometimes several nights; and a large tender induration remained for several weeks. The therapeutical results in a series of seventeen cases were not striking. In most of the cases the symptoms receded slowly; in no case could they be called brilliant. In four cases at least there were new manifestations of the disease after the injection, in two of them so serious that mercurial injection had to be resorted to. Relapse occurred in a case treated three months ago; and these recurrent symptoms had not receded two weeks after the second injection. The drug in general had an unmistakable curative effect, but not more marked than that of calomel or mercury salicylate injections; in fact, my general impression was that it was less so." In

speaking of a general scheme of constitutional treatment the author first describes the **opportunistic method** so popular with the Germans, but condemns it as well as the "uncompromising continuous treatment," but indorses **THE CONTINUOUS, INTERMITTENT PLAN**. Treatment in accordance with this plan, begins as soon as the diagnosis is made and continues for three and if possible four years.

**First year:** Twenty injections at intervals of from 5 to 10 days. Dosage 5 drops of twenty per cent. mercury salicylate suspension. Intervals and dosage governed by gravity and obstinacy of symptoms, usually 8 drops every ten days. If severe 10 drops every 5 days. First course to cover about 6 months. If all is well let patient rest four to eight weeks without specific treatment. The second course of the first year need not be as severe or prolonged as the first.

**Second year:** Intervals between injections longer, doses smaller, courses shorter.

**Third and Fourth years:** Two moderate courses during the two years.

Dr. Gottheil then enters fully into the treatment of local phenomena and special conditions.

Diseases of the genito-urinary apparatus, the uterus and pelvic organs, diseases of the skin, non-surgical treatment of diseases of the eye, are the titles of a few of the chapters. Pre-eminently practical and especially adapted to the daily needs of the general practitioner is our verdict.

## ABSTRACTS

### CURRENT LITERATURE. GERMAN.\*

ABSTRACTED BY DR. R. L. CUNNINGHAM.

REPORTS ON "SALVARSAN" (Ehrlich-Hata 506. O=C1C=CC(=C(C=C1)N2C=CC(=C(N2)S(=O)(=O)C3=CC=CC=C33)C4=CC=CC=C44)

In the *Berliner Klinische Wochenschrift* Dec. 12, 1910, Goldbach reports a number of late reactions following

the injection of salvarsan by 7 to 10 days. The cases were treated in the dermatologic clinic of Lesser and the

\*Read before the Los Angeles County Medical Association February 3rd, 1911.



reaction consisted in cutaneous eruption, angina and gastro-intestinal disturbances, together with an extremely violent reaction at the site of injection. Suggests that the toxic syndrome is due to the arsenic or to the production of antibodies in consequence of the drug.

In the same number of the same journal reports on a number of syphilitics treated by salvarsan are given by Rille. Recurrence noted in 14 out of 40 cases. In three cases of recent infection severe disturbances in the cranial nerves were noted, deafness 4 weeks after injection, facial paralysis 2 weeks later and choked disc 10 days later, all in a girl 21 years old and of robust strength. In the second case, a strong girl of 18, infected with syphilis four months, the injection of the drug was followed in eight weeks by headache and vertigo, and three weeks later by right facial paralysis and in another week by bilateral optic neuritis and paralysis of the 4th nerve on the right. The third patient, a blacksmith infected three months was treated and developed deafness 13 weeks later. Only one of these three had recovered at the time of writing. Rille calls attention to the fact that such symptoms do not follow the older method of treatment by mercury salts.

Still in the same number Touten discusses the recurrences noted so often after treatment by 606. The recurrence is due to the fact that not all of the spirochetes have been killed, probably because the drug has not come in contact with some which have been hidden or protected by their location within the body. It is necessary to mobilize the parasites in order that the drug may act upon them, and he suggests that this might be accomplished by preliminary treat-

ment with some other drug which would drive the spirochetes from the deeper tissues. Exercise, massage, baths and sweating he recommends as useful in this respect and adds iodides as being helpful. He favors intravenous injection of the drug.

In the Muenchener Medizinische Wochenschrift December 13th, 1910, are four articles on the subject of the Ehrlich-Hata preparation. Hering experimented with the acid solution in rabbits and dogs with a view to the determination of the lethal dose. For rabbits the minimum lethal dose was found to be 0.0045 gm. per kilo and for dogs from 0.01 to 0.02 gm. This is equivalent to a lethal dose of 0.315 gm. for a man of 70 kilos (150 lbs.) as estimated by the rabbit or 1.15 gm. as estimated by the dogs. Fraenkel and Grouven have reported the death of one patient following the injection intravenously of 0.4 gm. of salvarsan in 15 d. c. of water with 1 c. c. of N-10 NaOH. Hering thinks the acidity of his solution was responsible for the toxic effects at least in part as the rabbits and dogs were able to bear from 10 to 20 times this lethal dose when the drug was given in alkaline solution.

Weiler reports the experience of the dermatologic clinic in Leipsic in 206 cases of syphilis. Forty of the patients were under continuous observation; recurrence was noted in 14. In three cranial nerve symptoms were noted, whether as a result of the disease or of the treatment is undetermined. In 17 cases erythematous eruptions were shown, in two cases accompanied by jaundice. Two other cases manifested temperature and eruption typical of scarlet fever. In another case an acute haemorrhagic nephritis developed a few weeks after injection. He concludes that

salvarsan undoubtedly acts more rapidly than the usual measures in many cases, in some also more powerfully, but whether it ever eradicates the disease is as yet impossible of determination. Weiler never used the intravenous route.

Hausmann, in the same journal, reports a case of venous thrombosis after intravenous infusion of salvarsan, but shows conclusively that the accident was in no way connected with the treatment. It is the only instance of thrombosis he has seen among several hundred similar treatments by intravenous infusion.

# **SALVARSAN THERAPY — REVIEW AND FORECAST.**

By Paul Ehrlich.

(Muenchener Medizinische Wochenschrift)  
January 3rd, 1911.

Paper presented in Frankfort am Main  
Dec. 8th, 1910.

After some general consideration of the question of the improbability of finding any absolutely harmless drug therapy for the eradication of infectious disease, and after replying to some of the numerous criticisms put upon his latest preparation, especially by Hallpeau, who accused Ehrlich of actual dishonesty in pushing Salvarsan, Ehrlich goes at length into the various objections offered by numerous observers to the use of the drug. He considers Effects, Indications, Contraindications, Dosage and Dangers. He affirms that it is "one of the most powerful specifics against syphilis, which commonly far surpasses in rapidity of action or effect, all other therapeutic methods. In 8000 cases he himself has not seen one case of loss of sight, and calls attention to the hitherto unpublished fact that of the cases of blindness reported at least a few of them had been treated with arsenical preparations before

taking Salvarsan. In 7000 cases he found nine instances of auditory nerve disturbance, some of them having also other nerves affected to a less degree. Most of the disturbances come in those who are treated by the subcutaneous method, in the early months after infection (2-8) and in cases with negative Wasserman reaction. These disturbances come in patients treated by small doses or a single dose, or after mercury had been used, that it is not due to Salvarsan, since some of the cases cleared up promptly after antisyphilitic treatment and spontaneous disturbances of the auditory or optic nerve cleared up similarly after 606. Possibly a maximal dispersion of the virus occurs in the early stages of the disease within the organism and the reaction due to a greater number of grouped parasites may affect the result in this case.

The toxicity of the preparation is discussed at length and the fact that death has followed its use is taken up, to be disposed of by showing that death was due to other causes. Contraindications are, failure of heart muscle, degeneration of the vascular system, aneurysm, extreme old age, apoplexy, nephritis, diabetes, and gastric ulceration. It is best used in all spinal cord affections of luetic origin, mucus-membrane lesions, syphilis of the skin, secondary and tertiary lesions, the "galloping" syphilis of Unna, and especially in congenital syphilis and those cases which do not improve under mercury and K. I.

The article is comprehensive and thorough, even if somewhat resentful, and shows clearly the fixed enthusiasm of Ehrlich for the preparation, which, if used as he directs, is, to his mind, the best weapon now at hand in the treatment of lues.

**Blowing Out Pleural Effusions.**

(Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie. Jena, XXII., No. 2.)

Reprint of an article originally published by I. Holmgren in "Hygiea." Stockholm, September, 1910. Holmgren reports his experience in seventeen cases of pleural effusion which he has treated by removal of the fluid by blowing it out rather than by aspirating to remove it. Two needles are introduced, one above the level of the infusion and one below, usually in the i. s. x., between the midscapular and the posterior axillary line. Air is pumped into the pleural cavity at the

upper opening and the fluid flows out at the lower needle by the pressure of the air within the thorax. The effusion can be forced out completely in this way and the dangers from removing large accumulations is apparently less than from the old method, for he cites one example in which he removed 3200 c. c. of a tuberculous effusion, and another in which two separate operations gave 3100 and 2000 c. c. respectively, and in no case did the patient experience anything more than an agreeable sense of relief from heaviness. In some of his cases he supplemented the procedure by producing therapeutic pneumothorax.

## SURGERY OF AMERICAN AND ENGLISH CURRENT LITERATURE.\*

ABSTRACTED BY DR. JOHN C. HOLLISTER

British Medical Journal—December 10th, 1910.

Surgical Versus the Expectant Treatment of Intracranial Tumor—Victor Horsley.

British Medical Journal, Dec. 10, 1910, Surgical versus Expectant Treatment of Intracranial Tumor—Victor Horsley: Begins by saying the present attitude towards such a condition is the same as it was towards the appendix fifteen years ago. He advocates a general reform and indicates as the first step in such to be the frank recognition, that the so-called treatment of intracranial tumor by drugs is wrong because useless. The second step must be the enunciation of the earliest pathological conditions, which are indicative of intracranial tumor.

"It is as unjustifiable to wait until the final stage of the disease is entered upon and the signs of hypertension appear—namely, optic neuritis, headache and vomiting (particularly the first)—as it would be to wait for signs of lymphatic infection in a case of cutaneous epithelioma.

"It is necessary to understand what pathological conditions are indicative of intracranial tumor."

He then discusses such conditions according to Jackson's classification of neurological phenomena.

(a) Those of over action.

(b) Those of want of action.

B. Those of over action.

"I propose the following procedure should be adopted—that every case of focalized epilepsy, not proved to be idiopathic in origin, must be treated by exploratory operation. By focalized epilepsy I mean all varieties of epilepsy in which a focus or starting point of the lesions can be localized to one lobe of the cerebrum."

He refers to diagnostic papers of Dr. Jackson:

"If the above is carried out as a rational practice it will result in

\*Read before the Los Angeles County Medical Association February 3rd, 1911.



- (a) Discovery of neoplasms at an early stage.
- (b) Improve our knowledge of the affections of the brain cortex.

B. Those of want of action.

"Immediately a destructive lesion of the intracranial nervous system is recognized to have a progressive character, it must be treated surgically; i. e., every case of progressive motor or sensory paralysis of intracranial origin must be treated by exploratory operation.

The problem is to find the earliest symptoms of destruction in the various lobes of the cerebrum.

The earliest graded progressive signs of destruction to be looked for are the losses of sensory function; i. e., early recognition of commencing restrictions of fields of vision, of alteration in tone, of appreciation, of slight disorders of equilibration, will secure treatment of tumors of the occipital and temporal regions.

Should not wait for loss of motor power which is unfortunately the last phenomena to appear. (This is usual practice.)

"Every case of intracranial tumor definitely diagnosed must, according to the situation, either

- (1) by removal of the neoplastic tissue, or
- (2) release of the intracranial hypertension.

Often the final decision as to which must be left to time of operation.

"Except in the case where the field of removal involves direct destruction of the representation of such a single faculty as speech, free extirpation of neoplastic tissue should be the rule and mere decompression the exception.

"The question of diminishing the increased tension from the tumor is im-

portant because it is arresting at once papilloedema, headache and vomiting, but by so doing disadvantages are avoided.

"There are but two conditions under which a palliative operation is all that should be employed.

- (1) Cases in which the neoplasm is known to be situated in a position from which it cannot be safely dislodged.
- (2) Cases in which no localization is possible.

"In both of these cases the execution of subtemporal decompression is naturally the best procedure."

He concludes with a "note on the usual procedure in neurological practice in regard to the treatment of Intracranial Tumor and Syphilis." "A rational procedure has not been arrived at."

(2) "Is the present mode of treatment of intracranial syphilitic disease adequate?"

The relative incurability of cerebral syphilis suggests more active treatment, i. e., gummata—Pachy meningitis and syphilitic optic neuritis. Von Bergmann years ago established a law that such should be treated medically. Horsley advises to the contrary, dealing with such conditions by:—

(1) Opening subdural space and irrigating with 1.1000 Hgcl<sub>2</sub>.

(2) Gummata should be extirpated and irrigated with sublimate Sol. Has obtained striking benefit. "Such procedure is not heroic but involves no risk in itself."

In Syphilitic Optic Neuritis he also advises opening of subdural space and irrigation with Hgcl<sub>2</sub>.

#### Treatment of Splenic Anaemia by Splenectomy.

G. A. Sutherland & Burghard, London.  
Splenic anaemia or primary splen-

omegaly is a disease almost always fatal whatever the medical treatment may be. The pathology is not yet determined and diagnosis must be placed upon certain fairly clearly defined clinical features.

1. Anaemia, of the type spoken of as chlorotic (i. e., diminution in the number of reds with a diminished corpuscular value in haemoglobin).

2. Absence of leucocytosis—usually leucopaenia.

3. Considerable splenic enlargement, which cannot be correlated with any other known cause, as leukaemia, syphilis, tuberculosis, malaria or hepatic cirrhosis.

These three are the essential factors of the disease. The author says probably the future will establish splenectomy as the font criterion because of the rapid disappearance of symptoms upon removal. Refers to Armstrong's collection of cases—(of splenectomy)—32 cases with 23 recoveries and 9 deaths.

He then reports two cases of splenectomy with satisfactory results. He concludes:

"Our experience does not support the view that there is an inhibition of blood formation. We believe the spleen is actively engaged in the destruction of blood cells. The yellowish tinge in the skin and conjunctiva is probably due to active haemolysis in the spleen. It is certainly not due to any disturbance in the liver function. The condition of actual haemolysis disappears upon removal of the spleen. Elaborate examinations of the spleen, especially by American investigators, have failed to reveal any clear evidence of the nature of the disease. Tendency has been to fall back upon some theory of toxæmia due to changes in the spleen; yet the toxæmic result may be described

as an exaggeration of what is considered the normal function of the spleen, i. e., the removal or destruction of red cells.

"The haematemesis (often marked) may be explained on the assumption that the arterial blood, sent through the splenic artery, is excessive in amount, and over distension and rupture of the stomach vessels result.

"There is not necessarily a splenic disease present, but a disturbance in splenic function (as in Graves disease) a fatal termination otherwise justifies the splenectomy."

American Journal of Surgery, December, 1910.

#### Operative Treatment of Cranial Fractures.

Frank Hartley, New York.

A fairly well illustrated article giving the author's experience, data and opinions in a very clear-cut simple manner. He says:

"An increased blood pressure (of 130-160) is the key to the presence of blood, while the rhythm, rate and depth of the respirations give the earliest index of the success or failure of the vaso-motor-centers. These latter symptoms, together with the degree of unconsciousness, give the best indication of the degree of compression and of the necessity for an immediate or a delayed interference." Annals of Surgery, January number.

#### Matas of New Orleans

Testing the Efficiency of Collateral Circulation as a Preliminary to the Occlusion of the Great Surgical Arteries.

- I. Modified Moszkavicz Apparatus
- II. Aluminum Bands for removable clamps.

This article of Matas should be read in connection with a similar article of his that has just appeared in the last

Journal of the Am. Med. Association.

The Moszkavicz Apparatus is modified into a device for testing the collateral circulation of an extremity before amputation or aneurysmal ligation.

The Aluminum Bands are used in place of temporary ligatures about large vessel trunks as a device to prevent injury to the vessel —.

Surgical Gynecology Obstetrics—January Number.

### Carcinoma of the Uterus and Its Cure.

Peterson of Ann Arbor.

Report upon 40 cases:

Journal American Medical Association of January 14, 1910.

I. Diagnosis of Operability of Carcinoma of the Cervix. Emil Ries, 33 cervix cases radically treated.

II. Use of the Cautery in the treatment of Carcinoma of the Cervix (after John Byrne, New York). Frederick—Buffalo.

III. Results obtained by the Radical Abnormal Operation for Carcinoma of the Uterus. By J. H. Jackson—Toledo.

IV. Participation of the Tissues adjacent to the Uterus and of the Pel-

vic and Lymphatics in the Uterine Cancer.—John A. Samson of Albany.

The four articles should be read together with the discussions given in the same journal. They give a good summary of late investigations upon the subject of Cancer of the Uterus.

One notices at once that a strong effort is made in each article to make clear and plain the more indefinite anatomical and clinical facts relative to the subject.

Peterson's article gives his conclusions as to the advisability of a wide removal of the glands.

Ries tries to establish more firmly his former claims that very radical wide removal is best.

Friederick's article emphasizes again the use of the cautery in removal of the uterus and destruction of invaded tissue.

In Jackson's article are many statistical figures drawn from consideration of a large number of cases.

Sampson's Pathological article is possibly the most important of all because it gives very definitely the actual pathological findings, upon which all rational treatment must be, of course, based.

## THERAPEUTICAL HINTS

The origin of Tennyson's "Crossing the Bar" is given in the "memoir" of the poet by his son as follows:

"'Crossing the Bar' was written by my father in his eighty-first year, on a day in October when he had come from Aldworth to Farringford. Before reaching Farringford he had the Moaning of the Bar in his mind, and after dinner he showed me this poem written out. I said, 'That is the crown of your life's work.' He answered, 'It came in a moment.' He explained the Pilot as that Divine and unseen Who is always guiding us."

Dr. A. Dufour describes in the "Revue Medicale de la Suisse Romande," Geneva (January 20th), a new and most interesting use of this mydriatic. In many cases of cataract, central opacity of the lens precedes cortical involvement. If the pupillary aperture be narrow, as is generally the case in the aged, vision is greatly interfered with by such central opacity, which blocks the entire pupil, and where the condition is bilateral, the patient is unable to read or write. The operation of preliminary iridectomy, usually performed under these cir-



cumstances, may, in certain instances be impossible, either on account of general disease, contraindicating operation, or because of opposition to the performance of the operation on the part of the patient. For several years Dr. Dufour has successfully used euphthalmine hydrochloride, which by its mydriatic effect permits vision through the uninvolved cortical portions of the lens.

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**The Journal of Nervous and Mental Disease**, in an article by Dr. Walter M. Fleming, says: In acute attacks of laryngeal or winter cough, tickling and irritability of larynx, Antikamnia and Codeine Tablets are exceedingly trustworthy. If the irritation or spasm prevails at night the patient should take one tablet an hour before retiring and repeat it hourly until the irritation is allayed. Allow the tablet to dissolve slowly in the mouth swallowing the saliva. After taking the second or third tablet the cough is usually under control, at least for that paroxysm and for the night.

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Of all the acute infections to which human flesh is heir, none seems to be followed by such general prostration as La Grippe. As the Irishman aptly described it, it is "the disalse that keeps ye sick for a month after ye get well." Plenty of fresh air, an abundance of nutritious but easily digestible food, and regular doses of Pepto-Mangan (Gude) constitute a trio of therapeutic measures of marked benefit. If the heart action is unduly weak, or if the prostration is more than usually pronounced, an appropriate dose of strychnia added to the Pepto-Mangan is of considerable additional service.

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In DIGALEN the physician has a valuable aid in the natural cure of pneumonic and typhoid fever, for by its deep intramuscular injection, or

its administration by mouth or rectum, the enfeebled heart can be toned up and cardiac syncope avoided. Furthermore, the marked hyperleucocytosis which is said by Mirano (*"Riforma Medica,"* No. 23, 1907) to be produced within seven or eight hours after the injection of Digalen, and which becomes nearly doubled in the next twenty-four hours, is an important factor that ought not to be forgotten in the treatment of pneumonia, typhoid fever and the infectious diseases.

Digalen is a sterile solution of Cloetta's soluble digitoxin and is marketed by The Hoffman-La Roche Chemical Works, New York. Samples are furnished to physicians on request.

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"Look twice at a two-faced man."

"Cursed be the hand that scalps the reputation of the dead."

"The eye tells what the tongue would hide."

"Fire-water courage ends in trembling fear."

"Big name often stands on small legs."

"Finest fur may cover toughest meat."

"When you get the last word with an echo you may do so with a squaw."  
—[Indian Maxims.

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Parke, Davis & Co. announce some important improvements in their line of medicinal elixirs, a line numbering more than one hundred and twenty-five preparations and highly esteemed by physicians on the score of therapeutic excellence. The improvements cited are in manufacturing processes, in the interest of palatability, permanence and physical appearance. They are set forth at some length in the current issue of *Modern Pharmacy*, in an article that concludes with: "We might sum it up by saying that we have attempted first to make our

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line more stable; secondly, to improve the physical properties which appeal to the eye; and thirdly, to improve the flavors which appeal to the palate. But we want it understood that in making these improvements we have not in a single instance sacrificed the medicinal activity of the preparation."

The New York Pharmaceutical Company, Bedford Springs, Bedford, Mass., have just issued a brochure entitled "Medical Gynecology and Therapy in Obstetrics," and upon request will send you a copy, also samples of "H. V. C." If you have never given Hayden's Viburnum Compound a trial you will never appreciate its value over the many substitutes that are trading upon its reputation.

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For the relief of "those coughs that hang on," Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is a favorite remedy with thousands of practitioners. It takes the edge off the cough, soothes the irritated mucous membrane, and so builds up general health as to increase markedly the bodily resistance to other and more serious diseases. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is a potent yet palatable cod liver oil preparation.



"The great popularity of Peacock's Bromides has led to the introduction of numerous substitutes, alleged to have the same composition and efficacy, but these preparations do not bear the faintest resemblance to Peacock's Bromides in composition, either as regards the purity of their ingredients or the presence of all the mixed salts."

**Tuberculosis.**—Dr. Woods Hutchinson made a notable address recently at Galesburg, entitled "Tuberculosis, and What Illinois Can Do in the Battle Against It," in which he took the position that we have to fight the tubercular bacillus, which it is possible to exterminate, by means of preventive hygiene. His favorite breeding-place is a dark, damp, unclean floor, as that of the mosquito is a stagnant pool. Let in the sunlight, keep out the wet, maintain a proper standard of cleanliness, and we shall in time get rid of him. Persons infected with the disease should be removed from their surroundings, and if they are dwellers in cities, sent to the country, for their own sakes, and as a precautionary measure on behalf of the uninfected members of their households. He emphasized the importance of good and sufficient food for growing children. He advocated the passage of laws authorizing and requiring that every house intended for human habitation, after it has stood for fifty years, shall be burned down, if it be below the then accepted hygienic standards for light and air. "All this," he said, "would cost money, but it would be the best investment the community ever made. Not only would consumption disappear, but with it two-thirds of our pauperism and dependency, one-third of our insanity, and one-half of our crime." He ridiculed the unnatural and excessive fear of infection and of germs. "The tuberculosis bug is a terrible bug; but we are made up of scores of billions of terrible bugs, each

one of which is worth ten of him for fighting purposes. All we have to do, is to train and feed our own native-born armies, and they will eat him alive." The statistics of autopsies performed show that eighty-five per cent. of the bodies exhumed show traces of tuberculosis affection, from which the patient has recovered through the healing force of nature.—[The Institution Quarterly.

#### HOW TO KILL FLIES.

To clear rooms of flies carbolic acid may be used as follows: Heat a shovel or any similar article and drop thereon 20 drops of carbolic acid. The vapor kills the flies.

A cheap and perfectly reliable fly poison, one which is not dangerous to human life, is bichromate of potash in solution. Dissolve one dram, which can be bought at any drug store, in two ounces of water, and add a little sugar. Put some of this solution in shallow dishes and distribute them about the house.

Sticky fly-paper, traps and liquid poisons are among the things to use in killing flies, but the latest, cheapest and best is a solution of formalin or formaldehyde in water. A spoonful of this liquid put into a quarter of a pint of water and exposed in the room will be enough to kill all the flies.

To quickly clear the room where there are many flies, burn pyrethrum powder in the room. This stupefies the flies, when they may be swept up and burned.

Stanley Hall says: "Onanism is the most perfect type of individual sin, and is perhaps the purest illustration of mere sense pleasure bought at the cost of the higher life; it is destructive of that most important thing in the world, the potency of good heredity; it is the acme of selfishness, and it is a violation of the restraint perhaps most of all imperative."



# SOUTHERN CALIFORNIA PRACTITIONER.

Vol. XXVI.

LOS ANGELES, APRIL, 1911.

No. 4

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## FRACTURE OF THE SKULL WITH INTRACRANIAL INJURIES.\*

BY CHARLES E. ZERFING, M.D., LOS ANGELES, CALIFORNIA. CHIEF SURGEON AT  
THE LOS ANGELES RECEIVING HOSPITAL.

I have chosen this subject this evening not because of its novelty, not by reason of anything new that I might be able to present, but rather from the fact that fractures of the skull with their associated intracranial injuries constitute by far the most serious class of cases that come to the Receiving Hospital and with the hope that in the discussion which this paper may provoke further elucidation will be obtained in the treatment of a class of injuries attended with a high mortality and whose treatment has been the subject of much variance of opinion.

Without considering in detail the varieties of skull fracture such as simple, compound, depressed, nondepressed, punctured, fissured, etc., and the mechanism of their production as from direct and indirect violence, or the comparatively rare type of coup we shall pass at once to the

symptomatology presented in this grave type of trauma.

As is well known very few of the symptoms are due to the lesion in the bones themselves unless attended by actual displacement of bony fragments but result from the concomitant injury to membranes and brain as seen in concussion, contusion, and laceration of the latter structures resulting in compression from hemorrhage, edema and inflammatory exudate.

Formerly a sharp division into fractures of the vault and fractures of the base was made and much has been written as pertaining specifically to the symptomatology, prognosis, and treatment of these two varieties. Doubtless much can be said in favor of this artificial classification, yet the fact remains that about 75 per cent. of fractures of the vault involve the base and conversely a large percentage of fractures of the base estimated at from

\*Read before the Los Angeles County Medical Association, Feb. 17, 1911.

40 to 50 per cent. involve the vault. Nevertheless when fracture of either vault or base alone exists a group of symptoms will be presented quite distinctive of one region or the other and offering, of course, a distinctive prognosis and demanding a specific treatment.

Fractures of the vault are usually due to direct violence and may be simple and undepressed, or may be compound, comminuted, and depressed. Fractures of the vault are more often compound than simple. A linear or fissured fracture is very common and often occurs without symptoms and may thus escape detection whether it be simple or compound. If compound it may be readily determined by enlarging the scalp wound if necessary and thus making it quite obvious to sight and touch. Normal sutures may simulate fracture, but in the latter the fissure is marked by a dark line of blood not removed by sponging. Very frequently a fracture of the inner table of skull exists with marked depression of fragments out of all proportion to fracture of external table. The symptoms, prognosis, and treatment of fracture of the vault depend in great measure upon the extent of injury to membranes and brain which is equally true of fracture of the base. As many of these symptoms arise from the concomitant trauma of the intracranial contents and compression from extravasated blood and associated edema, they will be more fully considered in speaking of basal fractures.

#### Basal Fractures:

They often result from indirect violence and are nearly always compound by reason of direct communication with the naso-pharynx and ear. The middle fossa is by far most fre-

quently involved, while fracture of the posterior is the most serious by reason of close proximity to vital centers in medulla.

Fracture in the anterior fossa is evidenced by epistaxis often of a most persistent character; indeed, its long duration being a point in differentiating it from an ordinary "bloody" nose; a profuse discharge of cerebrospinal fluid from the nose is sometimes observed. Subconjunctival ecchymosis and discolorations from infiltrated blood into the loose cellular tissues about eyelids are common. Injury to the olfactory nerve from fracture of cribriform plate of ethmoid and resulting in marked impairment of the sense of smell was twice seen by the writer. Blood may trickle into the pharynx, be swallowed, and subsequently vomited.

In fracture of the middle fossa hemorrhage from the ear is a very common symptom and signifies involvement of the petrous portion of the temporal bone. The drum membrane is probably secondarily ruptured by the accumulation of blood in the tympanic cavity. Escape of cerebrospinal fluid from ear as seen in fracture of petrous portion of temporal signifies that the subdural space has been opened by the line of fracture. Blood may escape from tympanic cavity through Eustachian tube, be swallowed and subsequently vomited. Care must be taken not to confound the presence of blood in the external meatus in cases where it emanates from wounds of scalp or external ear with that due to rupture of tympanic membrane associated with fracture of petrous portion of temporal. Direct inspection with a good light will be the only safeguard against this error and should always be practiced. In fracture of posterior fossa discolor-

oration of tissues over mastoid and cervical regions are often observed. It not infrequently happens that all three fossae may be involved in the line of fracture as disclosed by autopsy.

Paralysis of the various cranial nerves is seen in fractures of the base caused either by being directly damaged by bony impingement, probably a rare condition, or by pressure from extravasated blood; the latter being quite common. The facial nerve is most frequently involved; the sixth comes next in frequency. Any of the cranial nerves may be affected.

Sugar may appear in the urine the direct result of the cranial injury and is due to disturbance of the diabetic center of the medulla.

Among the general symptoms that call for special attention and investigation may be mentioned the state of the pupils, the temperature, the pulse and blood pressure, the respiration, the mental state, the reflexes, the presence or absence of paralysis, twitchings, and convulsions, the condition of the sphincters, the appearance of the eyeground as observed by the ophthalmoscope and finally the appearance of the cerebrospinal fluid obtained by spinal puncture. All of these states will vary markedly according to the nature of the concomitant injury to intracranial contents. It therefore seems best to consider them separately in discussing concussion, contusion, and laceration, of membranes and brain with the resultant hemorrhage; the latter may be clinically divided into extra dural, pial, cortical, and sub-cortical.

It must be emphasized, however, that while such an artificial division may be of value in discussing in a systematic manner the symptoms presented by the various lesions as for

example extradural or pial hemorrhage yet in actual practice the clinical picture is a very complex one because in a very large percentage of head injuries a variety of pathological states exist. Concussion, compression from edema and extravasated blood from meningeal and cerebral laceration, together with still graver symptoms from destruction of brain tissue itself are frequently all present in the same case. It is this multiplicity of lesions that makes difficult an exact diagnosis, prognosis, and treatment.

#### Concussion:

It was formerly taught that concussion is the result of a molecular change in the brain the result of trauma and that no demonstrable lesion existed. In later years a school of investigators has arisen which teaches that concussion is always the result of a demonstrable lesion of the brain and that the term concussion should be synonymous with contusion. It is significant that this belief is rapidly growing and there can be no doubt but that with better methods of investigation these changes will be more readily detected. Many regard the manifestations of concussion as analogous or identical with those seen in shock. There are all grades of concussion from a momentary dazing of the patient and a slightly weakened and slowed pulse to the more extreme types of profound unconsciousness, with great muscular relaxation, weak, rapid pulse, a marked falling in blood pressure, shallow respirations, subnormal temperature, relaxed sphincters, and death, the picture being one of shock the result of vaso-motor paralysis. In the case of average severity the patient is only partially unconscious and can often be aroused; the pulse is soft, slow and weak; respirations may be slowed or



rapid. The pupils are very variable; they are often normal, but may be contracted, dilated or unequal. The temperature is subnormal at first, but when reaction sets in there may be a slight elevation. These symptoms usually last a few hours, the patient returning to consciousness with vomiting, after which there may be some mental confusion, dizziness, headache, general muscular weakness, etc., ending in complete recovery or continuing into a state of protracted traumatic neurosis.

Reaction should be established by means of circulatory and respiratory stimulants and external heat. The patient should be placed in a dark room and kept there until all symptoms of depression or irritation have disappeared. He should not be allowed to return to work for days or weeks as the case may demand.

If the symptoms of unconsciousness are unduly prolonged and if manifestations of compression should arise no time should be lost in opening the cranial cavity in order to relieve intracranial pressure that may be occasioned by extravasated blood.

**Compression:**

Compression may be due to depressed bone, extravasated blood, and edema and later to inflammatory exudate or abscess. The symptoms of compression as Von Bergmann states are due to impairment of the functions of the brain produced by imperfect circulation of blood. This impairment of circulation being the result of a lessened capacity of the cranium containing the brain and its membranes, with their blood vessels, and cerebro-spinal fluid.

In the first stages of compression there is a gradually increasing anemia of cortex and medulla which is followed by a stimulation of the vaso-

motor center thus explaining the increased blood pressure seen in the early stages. This increase of blood pressure is compensatory and will ease temporarily the anemia of cortex and medulla. There seems to be a regular fluctuation in the extent of increased arterial pressure with its effects upon the vascularity of the medulla, which thus explains the Cheyne Stokes breathing seen in compression; for during the period of depression the anemia increases with a suspension of respiration to be followed by a more perfect supply of blood to medulla with a return of breathing. Finally the vasomotor centers become exhausted and there is a permanent fall of blood pressure so that a permanent anemia of medulla occurs and with it a failure of respiration, while the heart continues to beat for some time longer.

The symptoms of compression may be divided into those occurring during the early stage of stimulation and those seen in the period of increasing exhaustion. Several intermediate stages have been described by Kocher.

In the early stages are seen headache, vomiting, flushing of the face, contracted pupils, papuloedema of optic disc, prominence of veins of scalp, and eyelids, elevation of blood pressure, slowing of pulse. There may be mental excitement, delirium, and marked restlessness. The pulse is slow and full. The pupils are quite variable; in the early stage they are often contracted, later dilated, sometimes unequal. Respiration early is apt to be stertorous and as coma deepens and the respiratory center fails it becomes a shallow, irregular, and may assume the Cheyne Stokes type. Cyanosis becomes a marked feature.

In the early stages unconsciousness may be only partial, from which the

patient can be aroused; later it develops into a profound coma with loss of reflexes and sphincter control. The temperature is variable, early it may be subnormal; later there is often a gradual rise to 100 or 101 deg., especially if hemorrhage is present and if associated with marked laceration of brain; in the latter state it may go to 103 or 105 deg., characterized by a rapid ascent. If the motor centers are irritated we may have convulsions either local or general, followed perhaps by paralysis which may be a monoplegia or hemiplegia.

These are the symptoms of compression present in any state where increased intracranial tension exists; they apply to the two conditions about to be described which are so frequently associated with skull fracture, viz., extra dural and pial hemorrhage. On account of certain differences in their clinical manifestations these two conditions will be separately considered.

Extra dural hemorrhage usually arises from injury to the middle meningeal artery or to any of the large venous sinuses. It is said that the latter condition is rare, but we have had two cases in both of which the superior longitudinal was torn. Injury to the middle meningeal is usually associated with fracture of the skull involving the temporal region, the line of fracture frequently extending into the middle fossa. Injury to the artery may occur without fracture. The accident may or may not be attended with temporary unconsciousness. The unconscious period is due to so-called concussion and is followed by a lucid interval lasting for a variable period of time. The lucid period gradually passes into one of unconsciousness due to the gradually increasing intra-

cranial pressure from the extravasated blood.

The pupil on the same side as the hemorrhage is often dilated and immobile. Hutchinson held that a single dilated pupil indicated a hemorrhage in the middle fossa of the cranial base of the same side, but later investigations by other observers show that this is not a pathogomonic sign and that it may occur in a great variety of cerebral conditions.

Injury to the cilio-spinal tract in its intracranial course is a more probable cause of the Hutchinson pupil and the other pupillary changes than injury to the third nerve or to the cortex, though no single lesion explains all cases.

Owing to the gradual increase in size of the extra dural clot the motor centers may be irritated producing twitchings or convulsions, and later may be paralyzed. But as a rule a well marked hemiplegia does not result because the clot does not extend high enough to involve the entire motor area. The clot in extra dural hemorrhage is usually lens shaped and is fairly well localized and unlike a pial clot, about to be described, does not have a tendency to diffuse itself over a very large area.

The temperature in any case of cranial injury attended with hemorrhage is apt to be normal or subnormal from the initial shock, but soon begins to gradually rise to 101 or 102 deg. If brain laceration to any degree co-exists there is apt to be a rapid rise of temperature to 102 or 105.

In subdural or pial hemorrhage many of the symptoms described as occurring in extradural clot obtain. Again we have the symptoms of a general increase of intracranial tension. In subdural hemorrhage so frequently associated with fracture of the base with



laceration of the tips of temporal lobes and base of frontal lobe there is a very marked tendency to diffusion of the clot over the surface of the brain and only in rare instances does it become markedly localized. The clinical picture of this type of hemorrhage is rendered complex by reason of its almost constant association with laceration and contusion of the brain itself.

Subdural or pial hemorrhage constitutes the most common variety of hemorrhage encountered in cranial injury. It is more often of venous than arterial origin. Lumbar puncture will reveal the presence of blood in the cerebro-spinal fluid, often in very considerable quantity.

#### Diagnosis:

A patient is brought to the hospital unconscious or semi-conscious, restless, mono or hemiplegic. The seat of the lesion may often be rapidly narrowed by physical examination. Impairment of consciousness indicating brain involvement—hemiplegia, opposite side of brain, etc., but when we ask did this come on suddenly or gradually; were there prodromata of apoplexy; was there an interval of consciousness; did the patient fall or receive a blow; were there previous symptoms of renal disease; was he poisoned with alcohol or opium? we are answered, "He was found in this condition and that is all we know about it." Our experience shows that spinal puncture is an important aid in the diagnosis of this type of case. The presence of blood in cerebro-spinal fluid indicating that the subdural space is the seat of a hemorrhage which in conjunction with other symptoms usually present indicate skull fracture especially of the base.

If the extravasated blood does not find its way into the subarachnoid space spinal puncture as far as the

presence of blood is concerned will be negative, but may reveal marked increase of intracranial tension in extradural clot or traumatic edema.

But we dare not be satisfied with the simple diagnosis of skull fracture; it is equally important to determine the nature of the associated intracranial injury. If there is an extravasation of blood, and edema or a depressed spicule of bone causing compression, an attempt must be made to localize the point of compression if one exists for only from such knowledge can we apply a rational mechanical therapy. But in our enthusiasm in finding evidences of focal symptoms or in ascribing the grave symptom complex to a simple increase of intracranial tension so easily relieved by a decompression operation, we must not forget that brain contusion and laceration account in a very large measure for the gravity of the situation.

Late temperature in skull fracture usually indicates meningeal infection or brain abscess.

#### Prognosis:

In every head injury the prognosis must always be guarded; it will depend entirely upon the seat of fracture and nature of the intracranial injury. In the past fractures of the base have been attended with a mortality estimated at from 50 to 60 per cent. A fracture of the base with no early symptoms except a slight epistaxis may be followed by a secondary meningitis and death. Persistent high temperature with unconsciousness lasting for many hours must be considered as indicating a very grave situation; but recovery may occur even in these cases. Phelps years ago pointed out the hopelessness in a case where the temperature goes to 105 or over; extensive brain laceration being usually present.



Many years ago Von Bergmann stated that if a patient survived the first forty-eight hours the prognosis is good; experience shows that this observation in the main is correct.

Inequality and immobility of pupils furnish the most frequent and unfavorable sign of fracture of the base. If the clot be extradural, its exact location determined, early operation will lower the mortality very materially in a class of cases in which it is very high in the absence of operative relief.

#### Treatment:

Every case of skull fracture should be confined to bed for a number of weeks at absolute rest, for only in this way can we avoid some of the later complications which will ensue if this precaution is not taken. Concerning operation, there are two classes of skull fracture that cannot be benefited by operative intervention; 1, that very large class of serious cases in which the primary concussion or shock is so great that reaction does not occur; in the majority of these cases extensive contusion and laceration of the brain exists. The 2nd group comprises those obviously mild cases which always recover without operation.

In the treatment of fractures of the vault certain rules are now quite generally accepted: 1, Simple fractures without depression and without symptoms do not call for operation; 2, Simple fractures with moderate depression and without symptoms should not be operated; 3, Simple fractures with marked depression but without symptoms are considered as operable; 4, All compound fractures demand a most careful exploration and investigation. The entire scalp should be shaved and disinfected; the wound enlarged and all foreign material removed. Depressed bone fragments should be ele-

vated. If the dura be injured sufficient bone must be removed to control all hemorrhage and remove clots. If a subdural clot is suspected by the presence of bulging, bluish discoloration and absence of pulsation the dura should be incised.

In many cases it is not necessary to remove loose bony fragments unless infection is feared. In the treatment of basal fractures two principal indications must be met: 1, the prevention of infection through the ear and naso-pharynx; 2, the relief of pressure from hemorrhage and edema. It is very doubtful whether a vigorous douching of the ear and naso-pharynx may not be productive of harm. In any case these passages should be gently treated, the ear should be wiped with pledgets of cotton moistened with mild antiseptic solutions like boric acid and plugged with sterile cotton which can be frequently removed if desirable.

In the Johns Hopkins Bulletin, April, 1909, S. J. Crowe, after a series of investigations recommended the use of urotropine to render the cerebro-spinal fluid bactericidal in cases of fracture of the base; from 5 to 8 grains can be given every three hours.

In later years the advisability of operating in basal fracture has been brought forward by Cushing, who suggested that every case of basal fracture with pronounced symptoms should have a single or double decompression with a view of relieving any threatening intracranial pressure from hemorrhage or edema. He devised the so-called intermusculo temporal operation, in which the temporal fascia and muscle are split in their longitudinal axis, a disc of bone one inch in diameter removed with trephine, and the opening enlarged with rongeur to the desired size, the dura opened, and

drainage established if necessary with rubber tissue. In any case he advised the bilateral operation if decompression on one side seems insufficient or if the wrong side be entered. He claims the following advantages for this procedure: 1, the frequency of the bony lesion in the middle fossa; 2, the fact that cerebral contusions are especially liable to involve the tip of the temporal lobe; 3, the exposure of the meningeal territory and ease of determining the presence of an extradural hemorrhage; 4, the possibility of draining through a split muscle rather than directly through the scalp; 5, the subsequent protective action of the muscle in case a hernia tends to form in consequence of a traumatic edema.

The unilateral or bilateral defect in this situation leads to no complications and no subsequent deformity.

It is very difficult to lay down specific rules relative to operative intervention in head injury; each case must be critically studied and properly interpreted, for only in this way can a rational therapy be applied. There is no doubt but that an ever increasing number of border-line cases will be saved by an early and judicious operation.

#### DISCUSSION OF DR. ZERFING'S PAPER.

Dr. C. A. Wright:—As Dr. Zerfing has said, fracture of the skull with associated intra cranial lesions, form the most important group of cases admitted to the Receiving Hospital. These cases are important for reason of their high mortality and because of the large number admitted. I have made a count of the clinical records for the past two years and find that we have treated at the hospital during that time 120 skull fractures and 21 cases in which a diagnosis of probable frac-

ture was made. Of the 120 instances in which a positive diagnosis was made, 84 were fractures at the base, 27 involved the vault and 9 were due to gun-shot wounds. I think, perhaps, rather than to go further into the discussion of the subject, it may be more interesting to you to hear the clinical records of some of these cases, and I have selected a few that will illustrate some of the more common conditions met with. The most satisfactory cases we have to treat are those of extra-dural hemorrhage with a minimum of injury to the brain cortex. Any injury severe enough to fracture the bony skull is certain to cause more or less damage to the brain itself; but in many cases the amount of brain laceration is so slight as to cause but little trouble.

The well-known case of Officer Coe was one of this type. Coe was admitted to the hospital November 19, at 6:45 in the morning. He was unconscious, quite restless and had extreme ecchymosis of both eyes. His pupils were equal but did not react to light. There was bleeding from the nose and vomiting of blood. The pulse count was 44 per minute, and Cheyne Stokes respiration was well established. By careful palpation a depression with crepitation was discovered on the right side of the head over the parietal region. Immediate operation was decided upon. A large flap of the soft tissues was turned down and the temporal fossa exposed. A very extensive comminuted fracture was found involving a large area on the right side of the vault with fissure fractures extending to the base. Several loose fragments of bone comprising perhaps four square inches were taken out and a large extra-dural clot was removed. There was very free hemorrhage coming from the anterior branch of the

middle artery which was controlled by ligature. The dura was opened, but no sub-dural hemorrhage was found and the wound was closed with drainage. After the operation the patient was sent to the California Hospital, and has since been under the care of Dr. C. W. Cook. From Dr. Cook I learn that consciousness was regained on the afternoon of the operation and there was steady improvement until the beginning of the fifth week, when localized meningitis, probably due to infection through the fractured cribiform plate, developed. In addition to this, the fluctuating temperature and pulse along with many other symptoms indicated an abscess formation. A few days later, marked drainage was established through the left ear showing that the diagnosis of the abscess was correct and in all probability was caused by secondary infection from a chronic otitis media and would seem to show that the fracture extended from the right side where the injury was received across the base and involved the left temporal bone. Drainage from the ear persisted for ten days. Since that time there has been a gradual improvement, pulse and temperature are normal and recovery seems assured.

Another case of extra-dural hemorrhage did not terminate so fortunately. This patient showed a fracture very similar to that sustained by Officer Coe. Several fragments of bone and a thick clot were removed, and the middle meningeal artery ligated before it divided into its anterior and posterior branches. There was constant dripping of cerebro-spinal fluid from the nose. Consciousness was regained soon after the operation and the patient was perfectly rational, with a normal pulse and temperature, until late on the third day, when men-

ingitis set in. The temperature went up very rapidly, reaching 105 degrees in a few hours, the pulse was 160, respirations 60. There was profound unconsciousness with extreme restlessness until death occurred early on the fourth day. This seemed to be a typical case of traumatic meningitis through infection from the nasal passages; we were unable to obtain an autopsy.

In the past six months we have had two cases of rupture of the longitudinal sinus. One was discovered at autopsy, after an unsuccessful decompression operation in the temporal region had been performed. The other was found at the time of operation. The patient was admitted presenting the usual picture of skull injury with ecchymosis of both eyes, Cheyne Stokes respiration, pulse of 40, profoundly unconscious and in very bad general condition. A laceration in the frontal area was explored and a depressed fracture found with a fissure extending to the base. On enlarging the trephine opening, a large tear in the longitudinal sinus bled profusely. This was controlled by suturing with fine catgut. Recovery in this case was uninterrupted and the man is now, seven months after the accident, following his trade as a carpenter.

The most helpless variety of all intra cranial lesions that we are called on to treat are those where the fracture is complicated by extreme brain laceration and the sub-dural hemorrhage which always result. Perhaps 90 per cent. of these patients die without regaining consciousness. They are always severely shocked, which in many cases, prohibits operative treatment.

One day we had a Mexican brought in who had fallen from a car; he was unconscious with extreme restless-



ness. No laceration of the scalp was found, but the entire left side of head showed a marked edema. The temperature was 100, pulse 64, respiration 25. There was vomiting of blood and incontinence of urine and feces. A spinal puncture was made and the serum obtained showed a large amount of free blood. The patient died twelve hours later. Just before death occurred the temperature was 106.4, the pulse 160, respiration 66. At autopsy there was found diffuse sub-dural hemorrhage and extensive lacerations of the cortex on the upper surface of the left frontal lobe.

These are cases over which there is much difference of opinion as to the indications for operative treatment. A large per cent. die if left alone and a few may possibly be saved by early decompression and drainage.

Dr. W. W. Richardson:—This has been a most interesting paper and it is upon a subject that is extremely interesting to me. There were two points brought out by Dr. Zerfing that I thought would bear further discussion, and the one that interested me especially was that of concussion. The theories of concussion have not seemed to me satisfactory. Dr. Zerfing says that it has not been generally accepted that concussion is contusion, that it is accompanied in the majority of cases by microscopic lesions. That may be so, but that does not explain the symptoms of concussion, the evanescent symptoms, the loss of consciousness for a short time and then complete recovery. The most typical example of concussion is the "knock-out" that we see at a prize fight. A sudden blow on the chin is followed by a loss of consciousness and stertorous respiration, but soon he is able to get up and walk out of the ring and

in a short time he is back to see the next fight. That is not indicative of a serious lesion of the brain. Kocher has been quoted as saying that the symptoms of concussion and of contusion are synonymous. What Kocher really does say is that the symptoms of concussion are usually accompanied by symptoms of contusion, but he does not say that they are synonymous. He uses the terms acute contusion and acute concussion. He believes that the pathology of acute concussion is a sudden anemia and that it may or may not be associated with contusion. He divides it into three degrees, first, the simple circulatory disturbance, an anemia; second, anemia associated with slight contusion; third, anemia associated with severe contusion. One authority stated several years ago that temperature was a symptom of concussion associated with laceration, but we cannot place much confidence in this theory, for certainly we do see cases of severe laceration not accompanied by temperature, so that temperature cannot be taken as indicative of laceration. However, it has been shown that there are certain regions (the corpus striatum) injury to which will produce temperature; and it has been shown that sudden withdrawal of fluid from the ventricles, or from the spinal canal, will produce temperature. Hence, temperature is of undoubted diagnostic significance, for injury to the corpus striatum would necessarily be associated with injury to the neighboring regions of the brain. In regard to the treatment of skull fractures, there is one point I have always liked to bring up in the discussion of the treatment of simple fracture without injury to the dura, and that is the replacement of the fragments. It is not spoken of in the text-books. In our mining work we

had many such fractures, i. e., circumscribed depressed fractures. It was our custom to replace the fragments and to close the wound, and almost invariably with complete success. In one case at the County Hospital we made a mistake in diagnosis, the cause of which was interesting. It was a case of cranial injury in which the patient could move the left but not the right side. We did a decompression operation and found no hemorrhage. The patient died, however, and at autopsy we found hemorrhage on the other side and we found that the patient did not have paralysis on the right side, but an irritation of the left.

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Dr. Robert P. McReynolds:—The subject under consideration this evening has already been thoroughly and exhaustively presented. I shall only briefly reiterate what the other speakers have said. It seems to me that we cannot too strongly emphasize the importance of having the general practitioner, as well as the surgeon, clearly and distinctly understand the indications and contra indications for operative work in all intra-cranial injuries. Our object should always be to best conserve the interest of those who are unfortunate enough to meet with such accidents.

No surgical operation can be hastily and ignorantly undertaken without great danger to the patient, disappointment to friends, and perhaps obliquy and censure upon the profession as a whole. On the other hand, failure to recognize and appreciate the importance of radical operation when indicated, is equally reprehensible. It is perhaps superfluous to say that trephining in inoperable fractures of the base, when undertaken simply in order to charge a fee, is nothing more

or less than highway robbery; and the failure to do a like operation in all cases where there is a possibility of extra-dural hemorrhage, is closely allied to murder.

In treating intra-cranial injuries, we assume great responsibility, and our obligations and duties are not fulfilled until every effort has been exhausted to arrive at an accurate and correct diagnosis. I feel sure there have been many deaths due to neglect on the part of physicians to obtain a detailed description of the accident, together with a precise history of the patient's condition preceding and following the injury.

Unnecessary fatalities have time and time resulted from the serious mistake of not keeping those suffering from possible intra-cranial injuries under observation until all danger is over. The following case may be taken as a typical illustration:

A lad ten years old, fell from the back of a buggy and was picked up and brought to the Receiving Ward of the Hospital. The resident physician gave him a cursory examination, and finding that he was perfectly rational, with no external wounds, allowed his father to take him home. The parents suspected nothing and consequently when the boy began to get drowsy, failed to recognize the seriousness of the condition until the occurrence of profound unconsciousness. He was then hurriedly readmitted to the hospital, but died before an attempt could be made on my part to remove the clot which had resulted from a ruptured middle meningeal artery.

A disagreeable aftermath of this case was a civil suit for malpractice against the resident physician, but fortunately it was non-suited out of court. Had the physician taken more pains, he might have elicited the his-

tory of a primary unconsciousness. This would have at once aroused suspicion of a possible hemorrhage from the middle meningeal or one of its branches, and indicated the necessity of keeping the boy in the hospital. The initial symptoms of secondary unconsciousness would have been noted early, and possibly a life saved by trephining.

A diagnosis is rendered particularly difficult where no history at all is available, the patient being unconscious when first seen. These cases should be carefully studied, every symptom noted and considered. But no operation should be performed (except to check hemorrhage) during the existence of shock.

It would be worse than useless to attempt a theoretical and dogmatic classification of all cases into those which demand operation, and those to be treated by the expectant method. In a general way we may say with no evidence pointing to an operable lesion of the vault, and the presence of pathognomonic symptoms of basal fracture, it is best to advise only palliative treatment. The time-honored administration of calomel and opium is worth considering, and the patient should be given all the advantages that come from skilled nursing and attention to details.

In fractures with intra-cranial injuries, the temperature is a factor of importance and should never be disregarded. It is claimed by Phelps that a primary temperature of 102 or more practically always means death, and if this is true should preclude all operative work. Fractures accompanied by focal symptoms demand immediate operation whenever there is reasonable hope of being able to remove the exciting cause. The concen-

sus of opinion strongly favors operation in all depressed fractures, even though there may be no immediate symptoms of compression. In simple fractures whenever there is a doubt one should feel that an incision baring the bone is imperative, in order that the diagnosis may be rendered certain.

The so-called decompression operation in fractures of the base, referred to by Dr. Zerfing, may be all right in the Johns Hoskins Hospital, under Dr. Cushing's master hand, but I believe if his suggestions were generally followed by all classes of operators, that it would materially add to the existing mortality. The frequency of complications demanding radical operative interference may be roughly estimated from Dr. Harte's study of 146 cases under his care in the Pennsylvania and Episcopal hospitals of Philadelphia. It was found necessary to use the trephine only 26 times.

The essayist made no attempt to describe the various operations, which is a whole chapter in itself. Suffice it to say that surgeons now are not content as a rule with small trephine openings, and when necessity demands do not hesitate by means of the osteoplastic flap, or the free use of the rongeur forcep, to remove large portions of the cranial bones. Those of us who have had the opportunity to watch the work of Sir Victor Horsley, are particularly impressed among other things, with his apparent disregard for the size of the opening when occasion arises for extensive exploration of the brain.

Please permit me, in conclusion, to express a very high regard for Dr. Zerfing's excellent presentation of this interesting subject, and to thank the Society for the opportunity of taking part in the discussion.



Dr. C. P. Thomas:—There is no subject more interesting to me than the one under discussion, and I am delighted at the manner in which Dr. Zerfing presented it. It is too big a subject to cover in one evening. When we consider that our ordinary textbooks use hundreds of pages to describe what the doctor has tried to describe this evening, we can readily see that he had to overlook many things. The question of the physiology interests me. The early diagnosis of fracture of the cranium is one of the most important elements in the treatment. As in appendicitis and perforating gastric ulcer, early diagnosis makes possible early operative procedure and ensures better results than those obtained later. As we know, in the floor of the fourth ventricles are the vagus, the vasomotor and the respiratory centers. The early symptoms of intracranial pressure affect these three centers. The pneumogastric is an inhibitory nerve and tends to slow the action of the heart and we know that compression of the brain almost invariably produces a slow pulse at first. Then, during that slow pulse stage, we might operate with some hope of cure. If we wait until it goes on to paralysis of the pneumogastric with rapid heart action, it is soon followed by death and it is too late for operation. The same thing is true in the case of the respiratory centers; the increased respirations go on to exhaustion and death. The vaso-motor disturbance results in anemia of the brain and after that has passed we are again past the stage in which we can do any good. The doctor spoke of cases of high elevation of temperature. In all probability the heat centers are affected and there are so many vital centers in that region that that is probably the reason that so many of those

cases end in death. I believe that Dr. McReynolds was right in saying that trephining consists in something more than taking out a little button of bone. With the removal of a large flap of bone, being careful to leave it attached to the scalp, we get splendid results without the likelihood of a hernia and without that weak spot that is left when a fragment of bone is lost. So I would emphasize the advantage of a large opening, the fragment of bone being replaced.

Dr. Zerfing, in closing:—I brought this skull down here to illustrate just one point. Dr. Wright mentioned the case of laceration of the superior longitudinal, the sub-dural hemorrhage being found at autopsy. We had been accustomed to operate on those cases in the old-fashioned way, turning down a good-sized flap in order to get a good exposure of bone in order to see the site of fracture. We had good results with that method. We adopted Vogt's rule, going in two fingers' breadth above the zygoma and a thumb's breadth behind the malar. That is very crude, but almost invariably you will reach the middle meningeal. Then we enlarged the opening and got a decompression as a result and had a good opportunity to explore the meningeal area. The Cushing method consists in splitting the muscle and fascia and taking out a large segment of bone. In the first case we tried that on we thought we had an extra-dural hemorrhage from the middle meningeal. We did that operation on one side but not on the other. The patient died within a few days and we found that death was due to rupture of the superior longitudinal sinus and not to a rupture of the middle meningeal. As students we were all impressed with the fact that extra-dural hem-

orrhage was almost synonymous with rupture of the superior longitudinal rupture of the middle meningeal, but sinus resulted in extra-dural hemorrhage.

## A BRIEF REPORT OF THREE CASES OF UNUSUAL INTEREST.\*

Case I. Necrosing Mastoid, Without Involvement of the Antrum, Middle or Internal Ear.—Case II. Meningitis and Death Following Acute Suppurative Otitis Media of Two Days' Duration in an Adult.—Case III. Persistent Bleeding Following Adenoid Operation.

BY E. W. FLEMING, M.D., LOS ANGELES.

### Case 1.

**Necrosing Mastoid, without involvement of the antrum, middle or internal ear.**

This case is reported because some of its characteristics are sufficiently unusual to be of noteworthy interest.

Mr. A. T. B., age 30, consulted me Dec. 10th, 1907, on account of a sensitive and rather large swelling behind the right auricle over the mastoid region. On inquiry, he stated that the left submental gland softened and discharged spontaneously three years ago.

Operated upon for enlarged cervical gland in 1906 and for tuberculous abscess of liver, June, 1907. No history of previous ear trouble. Syphilis denied. Family history negative.

Patient nervous, thin, but not emaciated.

Pulse 120. Temperature 99 to 100. No cough or expectoration.

The mediastinal glands which were reported to be enlarged in 1907, were found to be enlarged by Dr. Pottenger at this time, who also furnished me with the salient points in the patient's history and general condition.

No ear discharge. Drumheads intact and hearing good.

Dec. 14th, 1907, under infiltration anaesthesia, the mastoid region was freely exposed. The cortex was found to be perforated, through which issued pus. Further investigation revealed extensive carious destruction of the greater part of the mastoid process, without, however, involving the antrum.

Most of the mastoid cells external to the antrum were replaced by a mass of tuberculous-looking tissue, while the greater portion of the outer wall of the vertical part of the sigmoid groove was about to separate as a sequestrum.

Upon exposing the lateral sinus wall, it was found greatly thickened, very firm and to all appearances in a state of fibrous hyperplasia.

As apparently healthy bone was reached without going as deep as the antrum, and it was thought best not to expose it, there being no physical evidence or history of an involvement of the middle ear.

The antrum not being exposed, the operation fell short of being a typical mastoid operation, although the object sought to be accomplished was the removal of all available foci of the disease.

\*Read before the Los Angeles meeting of the Western Section of the American Laryngological, Rhinological and Otological Society.

Twenty days after the operation the mastoid cavity was completely healed and covered with healthy skin. He then went to the Pottenger Sanatorium at Monrovia, Cal., concerning his treatment there Dr. Pottenger can best tell you. Suffice for me to say that he was treated with tuberculin injections and returned to Tucson about Jan. 25th, '08, his general condition improved in all respects—apparently well of his tuberculous(?) mastoid. It should be stated that the involvement of the lungs has never been clearly defined. Temperature always above normal, ranging from 99 to 102.

March 5th he returned for further treatment. Examination of the mastoid region at this time revealed beginning softening and breaking down of the scar tissue, associated with a sinus extending from lower end of former vertical incision two inches down the neck.

March 9th the mastoid cavity was again opened, infiltration anaesthesia being used as before, and cleared of a mass of tuberculous-looking tissue, only to reveal a still further advance of the disease by the involvement of the bone posterior to the sigmoid groove over the posterior fossa, and superiorly carious bone in the form of a large sequestrum resting over the middle fossa.

The patient complained at no time of severe pain during the operation, which necessitated the laying bare of the posterior and middle dura adjacent to the mastoid region, in order to get well beyond the apparent limit of the softened and diseased bone. The mastoid wound up to April 1st appeared to be acting favorably, when it was noted that the necrosing process was again active, this time involving the under surface of the bony

meatus. A large section of the wound was again opened—the carious bone removed by Rongeur forceps and also a mass of unhealthy granulations by curettment.

April 25th, 1908, the following note was made in his case record:

At the present time the local condition has the outward appearance of healthy healing. His general condition has also materially improved, having gained four pounds in the last two weeks—yet I am having in view his previous history, inclined to think that the prognosis for ultimate recovery is gloomy.

Since Jan., 1909, the mastoid region has been completely healed and entirely free from any evidence of breaking down.

Altogether he had about 1½ years' treatment with tuberculin injections. The mastoid healing during this time.

Fully 1½ years have now elapsed since the last treatment with tuberculin.

The case is now in the hands of Dr. John C. Ferbert of this city, who has kindly furnished me with the following report, which brings the record of this interesting case down to the present time.

"Patient first came under my professional care in June, 1909, when he consulted me for an ulcerated sore over his seventh rib on the right side below the nipple. History of this was that it appeared about four months prior as a small sebaceous cyst which became red and inflamed and was opened but would not heal. Tissue around and underneath this was undermined and the rib necrosed. Under ether removed five inches of rib and cut out ulcer. Recovery slow, but uneventful. November 1, 1909, operated upon him again, this time for extensive ulceration about the sterno-



clavicular junction. Practically all cartilage was destroyed, considerable skin involved and some glands in the anterior mediastinum removed. Recovery good, but very slow.

"Following this last operation the bursa at the upper end of the ulna which was very much inflamed was aspirated. Fluid was a pale yellow, but report back from the pathologist was that it was sterile.

"At this time his pre-patellar and supra-acromion and the bursa at the 12th rib on right side were all very much inflamed and full of fluid.

"During all this time he had practically no temperature. May 31st, 1910, the bursa over the shoulder was much inflamed and was aspirated. Fluid injected into guinea pig which was killed eighteen days later. Nothing abnormal except a slight induration at site of injection.

"July 1st had a Wasserman test. Reported positive. From this on he was subjected to inunctions of Merc. and K. I. Since then he has improved markedly. For a while he discontinued both the inunction and the K. I., but developed a marked neuralgia over the entire body which for days taxed our capacity to relieve. Mercury rubbings did more good than opiates. October 8, 1910, he consulted me for a breaking down in the scar where some years prior he had glands in his neck removed. As the ulceration became so large (one-fourth inch in diameter) in so brief a time I at once sent him to the hospital. Painted with iodine and used hot applications and mercury rubs. In ten days the entire sore had healed."

In reviewing the history of this case for the past six years it presents a most interesting phase from a diagnostic standpoint. Tuberculosis, syphilis, or both? Clinically it looks like

tuberculosis. From the laboratory standpoint it's syphilis. Under mercury and K. I. he improves.

#### Case 2.

#### Meningitis and Death Following Acute Suppurative Otitis Media of Two Days' Duration in an Adult.

Dr. W. Duffield of this city saw the patient, Mr. S., on the morning of February 15th. The patient then stated that he had suffered for two days on account of a severe head cold and during the night he had for several hours a severe pain in the right ear, when the pain lessened and the ear began to discharge pus.

He also stated that he was aged 52 years; never had ear trouble of any kind before and always enjoyed excellent general health.

Dr. Duffield prescribed appropriate measures and saw the patient the next morning, Feb. 16th, at about 8 a.m. Ear discharging thick yellow pus. Ear pain, restless and unduly sensitive to deep pressure on the mastoid in the region of the antrum. Temperature 103—mentally rather dull and heavy, but rational. No chill or chilly sensations. Two hours later temperature 104—tendency to somnolence—irrational—occasionally vomits green-colored mucous.

At about 12:30 p.m. of the same day I saw the case in consultation with Drs. W. Duffield and Clarence W. Pierce. Patient in complete stupor. Does not respond in any way to his name or command to open his eyes or mouth. Reflexes abolished. Temp. 105 axilla. Pulse 90; vomits occasionally.

Otoscopic exam. shows pus and blood in the R. ear canal. No bulging of drumhead or of canal walls. Small recent perforation of drumhead, anterior and lower segment. Patient removed to California Hospital.

Lumbar puncture by Dr. Black. The fluid removed was cloudy, turbid fluid which presented numerous flocculi. Smears made from the fluid and from the flocculi showed an occasional coccus and in one instance a well-marked pair of pneumo cocci. The flocculi consisted of leucocytes (polymorpho nuclear, neutrophiles or pus cells.) Diagnosis from the above findings, meningitis, due probably to pneumococci.

At 5:30 p.m. we again saw the patient, who was now in profound coma. At midnight nurse reported temp. 106 axilla. Patient died next day, Oct. 17th, at 2 o'clock in the afternoon, being just about 26 hours after the first manifestation of ear trouble. Autopsy not permitted.

The treatment of suppurative meningitis, says Dr. S. MacCuen Smith in a recent paper read before middle section of the society, is necessarily surgical, and although we can only hope for success in the circumscribed variety, yet from the fact that it is almost impossible to recognize when a case has extended beyond this point, he believes we are always justified in operating on cases of infectious meningitis complicating aural disease unless already in a moribund state.

The case under consideration was already moribund when I first saw him and notwithstanding the demand of the relatives that something be done to save the patient, I firmly refused to operate.

Although it is generally conceded that the greater number of cerebral complications follow the chronic form of middle ear suppuration, the danger and wide-spread infection from acute suppuration is becoming more widely recognized.

It is also true that there is more or less of a localized meningitis in nearly

every severe case of acute otitis suppuration in children, which fortunately rarely develops into a general basilar meningitis, although a lack of proper treatment at the right time may aid it in becoming so.

If the case under consideration had been operated (as urged by relatives) when I first saw him, it would not, I venture to say, have saved his life. Instead, it is more than likely to have rebounded to the discredit, rather than credit, of surgical interference and might tend to discourage others from availing themselves of the benefit of early and timely surgical aid.

### Case 3.

#### Persistent Bleeding Following Adenoid Operation.

Oct. 5th, 1910, K. M. C., male, aged 17, florid complexion, well developed. General health good. Complaints of frequent recurrent head colds, associated with excessive post-nasal dripping and tubal congestion.

Examination revealed congested turbinals and excessive lymphoid hypertrophy of the pharyngeal tonsil. The following day, Oct. 6th, under local anaesthesia (cocaine) an enlarged adenoid mass was removed by means of a full size La Force adenotome. Free bleeding immediately followed the removal of the mass, but no more than is usual in such cases. After waiting a reasonable length of time, however, without observing any tendency for the hemorrhage to lessen, it became evident that we had to do with a condition out of the ordinary.

It should be stated that just before doing the adenectomy, the young man stated that he thought he was inclined to bleed rather longer and more freely than other boys after a cut on the body, but his father stated he had

never observed it and thought his son was mistaken.

There was no history of a tendency to bleed on the part of any other member of his family or relatives. After trying the usual various measures for controlling bleeding without effect, a post-nasal tampon was introduced and the patient sent to the California Hospital.

Elixir chloride of calcium in large doses prescribed. As the presence of the tampon caused considerable discomfort, it was removed after being in place some twenty hours. No bleeding followed. Two days later he went to his home.

Four days after the operation he started to bleed again, and bled two measured quarts before I reached his residence, which was two hours after the bleeding commenced. Post-nasal tampon again introduced and patient sent to hospital. Next morning post-nasal tampon became dislodged, causing the patient to gag and choke. It was removed. No bleeding.

On the afternoon of the following day, Oct. 14th, he again commenced to bleed and continued to bleed moderately, until late in the afternoon, when 15 c. c. of fresh normal horse serum was injected into the left abdominal region. The bleeding stopped about 10 o'clock that night, some four hours after the injection of the serum.

Twenty-four hours later, some eight days following the operation, slight bleeding reoccurred, but only lasted for about two hours. There has been no reoccurrence of bleeding since that time, and the patient has apparently fully recovered from his, to say the least, very disagreeable experience.

Dr. A. Halden Jones of this city was requested by me to obtain the blood picture in the case. His report

and interesting comments on the case follows:

"The site selected for the puncture was the lobe of the ear. A slight prick was made. This bled very freely, as noticed by myself and remarked by the nurse and father who were present. After filling the pipettes for a white and red count and making the smears for a differential count, the puncture was wiped off with alcohol and the bleeding stopped immediately. Coagulation time was not determined. The erythrocytes were normal in number, size, shape, etc. The only variation from the normal was an increase in the number of lymphocytes. The small lymphocytes were present in approximately twice the usual number. No pathological increase of lymphatic tissue could be demonstrated anywhere in the body, other than in the naso-pharynx.

"In searching through the literature we find that in undoubted cases of hemophilia, a lymphocytosis has been a rather frequent finding."

Dr. Jones also has a word to add as to the theory of the action of the horse serum:

"The factors in the coagulation of the blood are fibrinogen, thrombinogen, thrombokinase and calcium ions. Normally thrombokinase in the presence of Ca ions acts upon thrombinogen with the production of thrombin. This enzyme (it is a true clotting enzyme) acts upon the fibrinogen with the production of fibrin. In this case Ca ions produced no result. The clots were formed all right, but the bleeding was not controlled. The clotting seemed almost to be extravascular.

"After the injection of the serum the clots plugged the vessels, stuck to the endothelial lining. It is well-nigh impossible, with our present



knowledge of physiological chemistry of the blood, to construct a plausible theory of the *modus operandi* of this agent. The serum introduces one new factor, pre-formed thrombin. Why should this act locally at the site of bleeding? How does it act? Does the presence of thrombin introduced in this way accelerate the action of the patient's own thrombin? Or does it increase the quantity of

thrombin formed? What is the final verdict as to its action in control of hemorrhage from typhoid ulcers and as a pre-operative measure in jaundiced cases, etc? These questions are asked, not with any view of answering them at present, but merely as suggestions of what we would like to know before attempting to explain the action of horse serum in control of hemorrhage." Bradbury Building.

## REPORT OF LIVER ABSCESS WITH TERTIAN MALARIA.

BY O. I. TOWNER, M.D., INTERNE COUNTY HOSPITAL, LOS ANGELES, CALIFORNIA.

Patient M. B., age 39, male, single, white. Born in Germany; in California six years.

Family History: Negative. Has three brothers, all well.

Previous History: Was a strong, well child and enjoyed good health up to March, 1910. Spent three years in Sacramento Valley and for the past year in Bakersfield and along Los Angeles aqueduct. Had malaria fever in March, 1910.

Habits: Has been a moderate drinker and smoker. No specific history.

Present History: Had an attack of dysentery in May, 1910. Went to San Francisco and was in the Southern Pacific Hospital 28 days at that time. While there he had pain and tenderness in the right side of abdomen over gall-bladder region. This pain was increased on deep breathing or coughing and radiated to right shoulder. He improved at the hospital and went to work on the Los Angeles aqueduct, where four months ago patient was taken sick with chills and fever. The chills were followed by fever and profuse sweating occurring every second night. He thought it was a return of his malaria, had dyspnoea on exer-

tion with gradual increase of weakness and loss of weight. Said he had lost 40 pounds since May, 1910, occasionally had diarrhea with blood in stools and nausea after eating; no cough.

Entered hospital November 25, 1910, chief complaint chills and fever, pain and tenderness over the right hypochondriac region, loss of weight and strength.

### PHYSICAL EXAMINATION.

November 25, 1910.

1. Inspection: Patient fairly well nourished, appearance of having lost weight. Anemic, slightly jaundiced. Conjunctiva pale. Tongue clean. Chest, abdomen and extremities negative.

2. Palpation: No palpable glands in neck. Tactile fremitus increased over right upper chest. Spleen not palpable. Liver easily palpable below costal margin. Tenderness and rigidity over region of gall bladder. Muscular rigidity in right epigastrium region. Reflexes normal, skin dry. Pulse rapid, tension low. Tenderness over entire liver region anteriorly.

3. Percussion: Normal over chest except for impaired resonance over supra-clavicular region on right side.

Liver dullness increased upward to fourth rib in mid-clavicular line, fifth rib in mid-axillary line and eighth interspace in mid-scapula line and eleventh rib two inches to right of spine. Abdomen negative.

4. Auscultation: Chest negative except for few fine, moist rales in lower right lobe posterior. Heart tones weak and rather distant, no murmurs.

Notes: November 25th patient entered hospital having chills every second day. Blood smear showed tertian variety of malaria parasite. Patient was put on large doses of quinine when chills stopped, but the temperature continued. Temp. 99, pulse 90. Temperature up to time of operation January 6th varied from 98.6 to 102 Fahr. Tenderness and liver dullness increased gradually. Leucocyte count November 28th, 12,800.

Differential White Count: Polynuclear, 78%; small lymphocytes, 14%; large lymphocytes, 4%; mononuclears, 3%; eosinophiles, 1%.

Urine: Reaction acid. No albumen, no sugar. Specific gravity 1.020. Indican moderate amount. Few pus cells. No casts.

A few days later leucocyte count increased to 16,000. Examination of stools showed occult blood, no amoeba.

January 6th patient operated on by Dr. J. H. Seymour. The usual incision as for all gall-bladder operations was made  $1\frac{1}{2}$  inches from median line extending  $3\frac{1}{2}$  inches from the margin of ribs downward. On exposure the surface of the liver presented a normal appearance, but much enlarged, almost to umbilicus. Consistency was soft and fluctuation marked. Trochar was inserted in fluctuating area and about 1 litre of thick, bloody pus was removed. Later an incision was made along the trochar and the abscess opened. Exploration of the cavity showed a large one, involving a deep part of both right and left lobes. A rubber drainage tube was let in and stitched to liver and to parietal peritoneum. Wound was closed with interrupted silk-worm sutures and later a drainage tube was connected with a quart bottle at the side of the bed. Since the operation there has been about seven ounces of pus in twenty-four hours.

Examination of the scrapings from the wall of abscess showed amoeba coli. Culture showed no other growth. Since operation the temperature remained normal except for two or three intervals of only a few hours, when there was a slight rise.

Three weeks after operation patient died of hypostatic pneumonia.

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## OVEREATING AND ITS CONSEQUENCES.

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BY BOARDMAN REED, M.D., ALHAMBRA, CALIFORNIA.

In the current number of the *Gazette Medicale Belge*, (February 23, 1911) appears an article of very unusual practical value. It is so important that I have translated it entire and ventured to ask the editor of the *Practitioner* to give it the prominence of a place among original papers with a few brief comments by

myself.—brief because the article is itself rather long and because it teaches a most useful lesson in so explicit and emphatic a way that little need be added to amplify or enforce it.

Every physician in large practice has seen hundreds of patients suffering from having regularly taken an

excessive amount of food and drink, and some of us, being only human, have not altogether escaped the same fault ourselves. The paper is entitled "Excessive Alimentation (Suralimentation) as a Factor in Dyspepsia." By Dr. Marcel Labbe, Professor Agree in the Faculty of Medicine of the Hospitals of Paris. The translation follows:

In the pathogeny of digestive troubles there are to be considered not only the quality but also the quantity of the food ingested.

Besides the dyspepsias caused by aliments which are irritating, intoxicating or infectious, there are dyspepsias caused simply by a superabundance of nourishment. These are, in my opinion, much more frequent than the former. They are dangerous especially by their insidious debut which does not allow one to perceive the harm.

There are many persons who believe they have been perfectly hygienic because they have eaten no food not of good quality. According to them, good meat, good bread and good wine can never injure and conscientiously they cram themselves without scruple, and are completely amazed when they find that an excess of food of a good kind has rendered them dyspeptic.

Such a patient affected with gastric or intestinal troubles may bear well an irritating food considered as dangerous and excluded strictly from the table of dyspeptics, provided he takes it in small quantity, while he will suffer from having taken a meal composed of articles called unobjectionable—*de regime*—if he takes them in large quantity. To cite an example, I have seen a meal made of lobster a l'Americaine and of cooked shell fish, (that is to say, food well known as indigestible,) better borne than a dinner composed of numerous dishes,

legumes and things chosen from among the most digestible articles.

It is this that makes dyspepsia apparently so paradoxical and this is why people impressed by these examples, are not willing to believe in diet.

For one who knows how to interpret them, such facts prove solely that the quantity is still more important than the quality of food in the production of digestive troubles. Therefore, we ought in the study of the causes of dyspepsia to look for an excess in the quantity ingested; and in the prescription of a diet not be content with indicating the quality, but prescribe also the quantity of food permitted.

The digestive disorders so frequent in people living in restaurants and hotels are indeed due more to the excessive quantity than to the bad quality of the food. Nothing is more dangerous than the table d'hôte with a multitude of viands. I would like to see it replaced everywhere by meals a la carte which involve less danger of overeating.

The dyspepsia from overeating presents special characteristics which permit of its recognition. It involves in the early stages symptoms easily cured, and later conditions more serious.

One of the earlier consequences of overeating is the accumulation of fat which may go on to obesity. Various difficulties supervene after meals including a feeling of weight, flatulency, epigastric distention requiring a loosening of the clothes, a desire to sleep and the impossibility of putting oneself at work soon after eating. The breath is strong exhaling often an odor of flesh; the tongue is furred; the stomach is overdistended or dilated; the liver is large and below the ribs; the skin and mucous membranes are slightly jaundiced and there is a veritable cholemic state.

The stools are frequent, two or



three a day, soft, pasty, fetid. The urine is dark and leaves a brick red sediment on cooling. It reduces Fehling's solution incompletely without giving the precipitate of copper oxide characteristic of glucose. It contains often the reddish-brown pigment urobilin, sometimes traces of albumen.

The nervous system is irritable; the sleep is disturbed and sometimes, especially if alcoholism is added to overeating, there is torment from nightmare.

More serious results are likely to afflict one having the digestive tube profoundly involved. Overeating may bring gastric hypersecretion and hyperchlorhydria, perhaps ulcer of the stomach. It produces enteritis which can have as a consequence appendicitis, especially after the excessive eating of meat. The pancreas itself becoming attacked involves serious faults of nutrition. The liver is congested. It may show a beginning of cirrhosis or gall-stone disease. The kidneys themselves are often affected. To albuminuria of digestive origin succeeds a renal lesion. There was perhaps never an obesity after the age of forty years without a certain degree of renal sclerosis. Uremic complications are frequent in these patients and are associated with astyolic conditions.

Overeating is in large part responsible for the troubles of nutrition such as diabetes, gout, renal lithiasis and certain attacks of asthma. The affections caused by overeating sometimes assume such a severe form that one may fear cancer of the liver or pancreas, or a wasting diabetes, and to warrant an unfavorable prognosis.

Therefore, it is necessary to know how to recognize and prevent suralimentation (overeating). An analysis of the urine properly interpreted is very useful to this end. Upon mak-

ing a complete examination of the urine in the usual manner one sees that the elimination of the normal ingredients is always excessive. There is an excess of uric acid, of urea, of the salts and more of the chlorides than usually found. This signifies the ingestion of a superabundance of food capable of giving rise to an excessive urinary secretion. If for more exact information the patient be required to weigh his food while saving his urine for analysis, it will become evident that the regimen is too liberal.

Finally, if we compare the ingesta with the urinary elements excreted we may often discover that the elimination, though greater than the normal average, is still less than it should be, thus showing an imperfect intestinal absorption due to overeating and the resulting digestive disorders.

This method has often enabled me to recognize a suralimentation when the patient had not admitted it or even been conscious of it, and enabled me to institute an appropriate regimen which cured digestive derangements of an alarming kind.

The early consequences of suralimentation disappear readily after modifying the habitual diet. Thus one may see vanish after a few days the glycosuria, the asthma-like dyspnoea and the somnolence which result from suralimentation. On the contrary the later consequences resist treatment much longer but they finally end by responding to a reduction of the alimentation alone, thus establishing the proof of their origin.

Practically I conclude from this study that the physician ought always to think of overeating as a cause of dyspepsia; and that in his dietetic prescriptions he ought to insist as much upon the quantity as upon the quality of the foods advised.

Dr. Labbé makes the dangers of overeating plain enough, though he omits any mention of arteriosclerosis which is surely the most frequent and widespread of its ultimate consequences—the one which finally kills most of us who do not succumb prematurely to an accident or to some more sudden or acute malady. Nearly all recent writers on arteriosclerosis give prominence to overindulgence in the pleasures of the table as one of its chief etiologic factors.

The methods advised by Dr. Labbe for diagnosing the overfed condition in persons when neither they nor their friends are conscious of it or will admit it, are simple and should suffice after marked derangements have resulted. There is, however, a still simpler method of deciding when any one is overeating before noticeable damage has been produced. I have described it recently in the third edition of my book on Diseases of the Stomach and Intestines, but will also mention it briefly here. When the patient is overweight that alone is proof that a surplus of food has been long habitually taken. In the case of any person who is not overweight, the doubt can be settled by reducing gradually the amount of nourishment consumed and noting meanwhile the effect on the body weight. If with less food the weight remains the same (or even increases, as it often does through an improvement in the digestion), the amount eaten before was excessive and symptoms would certainly have developed later.

The more scientific way, of course, is to have all the food weighed and the number of calories in it estimated; but, few doctors in general practice can afford to do all this and still fewer of their patients will pay for having it done or put up with the trouble involved unless really ill or their health seriously impaired.

#### THE A. M. A. IN LOS ANGELES.

The American Journal of Clinical Medicine for March says editorially:

It may seem a little early, but it is just as well for you to be making your plans to go to California next June to attend the A. M. A. meeting. California physicians have already begun the work of preparation, and Dr. H. Bert Ellis, Suite 245, Broadway Building, Los Angeles, will be glad to answer any questions from interested physicians.

We are promised not only the best time that California boosters know how to give us, at Los Angeles, San Francisco, and all along the line, but we are to be allowed to gather unlimited free oranges, right from the trees, will be participants in a typical Mexican barbecue at Pasadena, and will be taken to Catalina Island, twenty-five miles out at sea, where we are told we are to have an "auspicious introduction to the Pacific Ocean." (This statement requires further elucidation. What kind of an introduction, did you say?)

These are only a few of the attractions. "Come," says our California friend, Dr. Walter Lindley of the Southern California Practitioner, "and be happy and have a delightful memory to dwell within you the balance of your life."

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The California Legislature just adjourned appropriated \$25,000 towards a hospital for the Los Angeles College of Medicine of the University of California. This is a very small appropriation, but is the best that could be done at this time and the Senators and Assemblymen from Southern California deserve credit for securing even so small an amount. Dr. E. M. Butler, Assemblyman from Los Angeles, made it his special care.

# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

This journal endeavors to mirror the progress of the profession of California and Arizona.

Established in 1886 by

WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

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Address all communications and manuscripts to

EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

## EDITORIAL

### THE CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

Monday at 10 a.m. April 3rd, the full board met in the office of the secretary in San Francisco.

The most important matter that came up was the report on the prosecution of quacks—especially in Los Angeles and San Francisco. A great amount of valuable work has been done and several convictions have been secured. The tabulation presented of Los Angeles abortionists is very formidable and contains names that surprised us. The board unanimously voted to push the work energetically not only in the cities, but also in the country districts of the State. The prosecution of the abortionist is to be fully as vigorous as the prosecution of the unlicensed quack.

The report as to medical legislation was that all bills affecting the medical

law had failed to pass except the Hurd bill, which places the power of appointing the members of the board absolutely in the hands of the Governor and not (as at present) requiring him to appoint from lists of names furnished by the State medical societies. If this becomes the law the Governor will be the object of political influence from designing people. There is a hope, as we go to press, that the Governor may veto the bill. The trial of Dr. Thomas Harry Dixon of Knight's Landing came up at 11:15 a.m. Dr. Dixon, who dispenses his own medicines in the village where he lives, had been convicted, during a crusade, of selling a quart of whisky. An application had come that the Board revoke his license on account of this conviction. Dr. Dixon, who graduated from the University of Vermont, class of 1899, appeared before the Board



and was questioned by the Board's attorney. The result was that the board unanimously dismissed the complaint. Dr. Dixon is a manly-looking son of the Granite State and made an excellent impression. The Board then reviewed the questions that were to be used.

The examination began at 8:30 a.m. on Tuesday, the fourth. There were seventy-two applicants. The questions used appear on another page.

Thus closed our two years' service on the California State Board of Medical Examiners. The work of this Board has been absolutely honorable. Our association with the other members of the Board has been harmonious and delightful. We can look back with pride on three steps that this Board has taken:

First, a thorough organization for the prosecution of illegal practitioners.

Second, initiating the plan of asking twelve questions, from which the applicant answers ten, in place of only submitting the ten questions that are to be answered.

Third, establishing and carrying out the plan of reviewing all questions before the whole Board the day preceding the beginning of the examination. This leads to many important changes and corrections.

There has been no scandal and we believe no suspicion of dishonor in the history of this Board. We would like to see the Board empowered to establish a rule that any applicant who

failed in an examination but who secured 80 per cent. in one or more branches shall be re-examined only in those branches in which he received under 80 per cent., if he comes up for re-examination within one year.

We also think as a matter of fairness that this State should have reciprocity with all States where the standards are as high as the requirements in California. We know eminent specialists in various branches of practice who would come to California if it were not for fear of the examination in chemistry and other elementary branches in which every busy physician becomes rusty. The object of our law should be only to keep out the man who is not qualified to intelligently practice medicine.

Keen, Deaver, Welch, the Mayos, George Dock, John B. Murphy, E. E. Montgomery, if they desired to practice in California, would have to pass the same examination as the student who has just graduated.

Instead of putting up barriers of humiliation and annoyance we should invite the greatest men in the world to come here. California deserves the ablest in all laudable lines of human activity. Let us open wide the gates to all who are worthy.

Laws protecting the people from the criminal and the ignorant should be rigidly enforced, but any regulation in our great profession that is in the least tainted with the spirit of the trades union should be cancelled.

### RACE SUICIDE AND EUGENICS.

A diminishing birth rate is not incompatible with eugenics. The widely prevalent idea that a declining birth rate in a nation unmistakably indicates racial and economic degeneration is false and needs revision. Every line of investigation and reasoning, save those of religion and sentiment, inevitably leads to this conclusion.

The propositions advanced by Malthus in 1798 in his essay, "The Principle of Population," have never been successfully attacked. His statement that there is a tendency of human life to increase more rapidly than the means by which it is sustainable is true beyond question. When unchecked by unfavorable conditions population increases in a geometrical ratio, 1-2-4-8-16-32-64-128. But under the most favorable conditions, food supply increases only by arithmetrical ratios or 1-2-3-4-5-6-7-8. A mere glance at these figures is sufficient to show that under possible conditions of food supply and emigration it is not a matter of centuries, when there must be very widely spread efforts to limit the increase of population by other means than emigration, vice and misery.

The birth of a child is desirable only provided there is opportunity for his best development either in the community in which he is born or in some other to which in the ordinary course of events he can go.

It has been a favorite contention that Anglo-Saxon civilization has maintained itself so long and well, be-

cause it has succeeded so well in changing its governmental forms to suit the changing conditions of its development. There is, however, good reason to believe that deeper than that facility for changing governmental forms, has lain the rise of a general intelligence which has made the former possible.

Under conditions of modern life—electricity, steam and the printing press—the Anglo-Saxon race has no patent upon any kind of knowledge or general intelligence. As a matter of fact economic necessity of checking the increase of population on a national scale by means other than emigration, vice and misery, happened to come first to France and next to Germany. It has been claimed that some Indo-Asiatic races managed this little matter by killing the girl babies and letting thousands of adults starve. But such simple methods are denied in France and Germany.

In Germany the birth rate per thousand was 42 in 1875; 36 in the decade 1880-1890, and 33 in that ending in 1910. For many years France has had a decreasing birth rate, and an increasing economic prosperity.

In this country certain facts appear in the last census as faint shadows cast before the coming of analagous conditions with us. The State of Iowa actually lost in population in the decade ending in 1910, and that of Illinois increased less than 20 per centum, including the great city of Chicago.

Now economic conditions are bet-

ter in France and Germany today than they were when their birth rate was higher than it is at present, and Iowa farmers are better off than they were in 1900.

These facts go far to show that in place of being a national calamity, a declining birth rate may indicate the action of forces which will bring about the conditions for which the eugenic societies are striving.

E. W.

#### DR. HIBBARD'S TRAGICAL DEATH.

Dr. William Edward Hibbard, one of the best-known eye and ear specialists in the country, died at his home, 224 North Madison avenue, Pasadena, last night from burns which he sustained yesterday morning.

A veil of mystery surrounds the manner in which Dr. Hibbard received the fatal burns. He went into the bathroom of his residence at 7:30 o'clock in the morning, wearing his night clothing and bed slippers. He had only been in the room but a few minutes when he was heard to scream out in pain.

His son, William Edward Hibbard, Jr., rushed into the bathroom and found his father stretched out on the floor with his body wrapped in flames. His pipe which he had been smoking was in his mouth and three burnt matches lay by his side.

It is supposed that in lighting his pipe a spark from the match ignited his flannel night robe, which instantly caught fire. Dr. Hibbard's body was frightfully burned. His face was untouched by the flames.

When found he was conscious and told his grief-stricken wife that he was unable to account for the accident. Dr. E. G. Mattison was summoned, and other physicians were called into consultation. Every known means to medical science was employed to save the doctor's life, but to no avail. He died at 10 o'clock last evening, having been under the influence of opiates from early morning.

When the fatal accident was first told, it was reported that Dr. Hibbard was taking a bath and that the instantaneous water heater had exploded. The family promptly denied the report as the bathroom is without a hot-water heater.

Dr. Hibbard had long been prominent in medical circles. He had won an enviable place in his profession, as an expert on diseases of the eye and ear. He had been a resident of Pasadena, coming here in 1902. He maintained offices at 322, 323, 325 Chamber of Commerce building.

Besides his wife and son, Dr. Hibbard is survived by his mother, Mrs. Prudence Hibbard; a sister, Miss Elizabeth Hibbard, and an aunt, Miss Bessie Hibbard.

Dr. Hibbard was a native of Womborough, England, and was born June 9, 1865. He received his education at Colgate and Hamilton colleges, the New York University Medical College. He received his M.D. degree in 1889 and his B.S. degree from the London Medical College. He took post-graduate work in London, Heidelberg, Berlin and Vienna. He was formerly in-



terne in Bellevue Hospital and clinical assistant in the Manhattan Eye and Ear Hospital, New York, and St. Bartholemew Hospital, London.

Before coming to Pasadena he practiced his profession in New York City and Providence, R. I. Dr. Hibbard was connected with a number of medical societies, holding memberships in the Los Angeles County Medical Society, the Pasadena Medical Society, the Medical Society of Southern California, the Medical Society of California, the American Medical Association, the American Academy of Ophthalmology and Otolaryngology and the International Tuberculosis Association. He was a Mason of high standing, belonging to Corona Lodge of Masons of this city.—*Pasadena Star*, March 17, 1911.

Dr. Hibbard was a man of great energy and of varied interests. Besides attending to a large practice he took an active part in banking and other financial enterprises. His last words were urging Dr. Mattison to look after the burns on the hands of his son.

#### POLIOMYELITIS.

In the November number of this journal may be found a brief summary of recent knowledge concerning poliomyelitis. Since that date additional reports of great interest have appeared which may be summarized briefly.

Osgood and Lewis (*Jour. A. M. A.* Feb. 18, 1911) report their work and its results from the department of medical research at Harvard Medical School. They used virus obtained from Flexner and experimented upon

monkeys. They made successful inoculations with the nasopharyngeal mucus in one monkey as long as six weeks after the acute attack had subsided, and from another five and one-half months after the attack.

In this series of experiments they were unable to transmit the disease by intra-cerebral inoculation of filtrates of the brain and chord of recovered subjects, or from the nasopharyngeal mucosa of normal monkeys.

During the experiments the infected monkeys mingled freely with the others and ate from the same feeding dishes, but no case of transmission, under these conditions, occurred.

Flexner and Clark (*Jour. A. M. A.*, Feb. 25, 1911) report that while the blood of normal human beings contains no immunity principles against the virus of poliomyelitis, that of those who have had the disease does. They claim that by means of this test it is possible to prove that a given individual has had an attack. In view of the persistence for long periods of the virus in the mucosa of the nasopharynx, and the consequent menace which such subjects possibly may be, Flexner suggests that the test may be of practical value in abortive cases or those in which the diagnosis is uncertain.

Flexner and Clark report instructive observations upon the persistence of the neutralizing power in the blood and cerebrospinal fluid. The immunity principles persist in the blood for several years after an attack, but in the spinal fluid they may disappear in

two or three months, and it is highly exceptional to secure immunization with the fluid after one year.

The administration of hexamethylenamin by the mouth is followed by its presence in the cerebrospinal fluid. In monkeys in which this condition has been produced, if the virus of poliomyelitis is injected intracerebrally and the administration of the drug is continued, in some, but not in all, the incubation period is increased from six to twenty-four days, and in some paralysis is entirely prevented.

Flexner says that no examination of the nasopharyngeal mucosa has been made in persons who have succumbed to poliomyelitis, and he urges the importance of such examinations. In view of McClanahan's statement that the epidemic of the disease in Nebraska rapidly subsided wherever an efficient quarantine was secured, it seems probable that the importance of diagnosis and rigid quarantine is imperative.

To the writer it seems that Flexner has not attached as much importance to the use of hexamethylenamin as his observations warrant. It is highly probable that a drug whose administration can prolong the incubation period from four to twenty-four days, and entirely prevent paralysis in some cases, is a drug of great promise. It is surely in order to try to determine experimentally methods of administration and the toleration of the drug. They both act through the blood and hence may be brought together.

E. W.

## CHRISTIAN SCIENCE.

No. 2.

We believe every reader of the Southern California Practitioner will feel indebted to Dr. (Rev.) J. M. Buckley of The Christian Advocate (N. Y.) for the work he is doing in presenting the essence of Christian Science in a series of articles. It is time the scientific world quit doing the ostrich act in regard to Christian Science. There is something to do besides burying our heads in the sand until the storm blows over. We again quote from Dr. Buckley:

**What Is Sickness?—According to Mrs. Eddy.**

### Universal Hallucination.

[p. 186.] All disease is the result of hallucination, and can carry its ill effects no further than mortal mind maps out. Facts are stubborn things.

The only part of this that is true is the statement that facts are stubborn things. But Mrs. Eddy deals warily with facts, as will be shown hereafter.

Here is a cunning question:

[p. 389.] Medicine virtually admits the nothingness of hallucinations, even while treating them as disease; and who objects to this?

But she seems not to know that the hallucinations of the insane have a physical basis. While physicians admit that the hallucination is false, they know that physical conditions are the cause of it, just as alcohol, ether, chloroform—material elements bought, sold, and given to men—produce a physical change, which, affecting the nerves and blood, causes the hallucination.

[p. 420.] Nerves have no more sensation, apart from what belief bestows upon them, than the fibers of a plant. Mind alone feels, sees, tastes, smells, and hears; therefore these faculties continue when organization is de-

stroyed. Otherwise the very worms could unfashion man.

Babes, without "belief" of any kind, feel pain and soon find out the part of the body affected.

[p. 421.] The so-called senses of matter are the only source of evil or error.

But without them there would be no communication with the world.

The following illustrates the way in which she rings the changes in her "belief:"

[p. 379.] XI. Divine Science shows that matter and mortal body are the illusions of human belief, which seem to appear and disappear, to mortal sense alone. When this belief changes, as in dreams, the material body changes with it, going wherever we wish, and becoming whatsoever belief may decree.

It is not Divine Science with which Mrs. Eddy deals, nor is it any Science.

The next quotation is simply grotesque:

[p. 358.] The so-called substance of bone is formed first by the parent's mind, through self-division. Soon the child becomes a separate, individualized thought—another mortal mind, which speedily takes possession of itself.

In her comments upon Adam and Eve (Gen. 2.21) she says:

[p. 454.] According to this narrative, surgery was first performed mentally, and without instruments; and this is a hint to the medical faculty. Later in human history, when the forbidden diet had been digested, there came a change in the *modus operandi*—namely, that man should be born of woman, and not woman again taken from man. It came about also, that instruments were needed to assist the birth of mortals.

It would be charity to suppose the writer of the above to be insane; but many things prove the contrary.

Her credenciveness sometimes carries her into ludicrous lengths:

[p. 478.] It is related that a father, anxious to try such an experiment, plunged his infant babe, only a few hours old, into water for several min-

utes, and repeated this operation daily, until the child could remain under water twenty minutes, moving and playing without harm, like a fish.

She does not recommend that process, but advises parents to train their children on dry land on similar principles. According to her fancy if it were not for "mortal belief" all of us could reside at the bottom of the ocean on the long summer days.

This is supported by the following:

[p. 334.] You say or think, because you have partaken of salt fish, that you must be thirsty, and you are thirsty accordingly; while the opposite belief would have produced the opposite result.

This definitely declares that if the human race thought so salt fish would quench thirst!

#### Mrs. Eddy Not Afraid to Specialize.

[p. 389.] Here is the difficulty, that generally it is not understood that one disease is just as much a delusion as another.

[p. 412.] Nerves are a belief that there is sensation in matter, whereas matter is devoid of sensation.

[p. 318.] If the lungs are disappearing, this is but one of the beliefs of mortal mind.

[p. 358.] Palsy is a belief that attacks mortals through fear, and paralyzes the body, making certain portions of it immovable.

The former specializes paralysis, and also apoplexy.

[p. 358.] Ossification, or any unusual condition of the bones, is as directly the action of mortal mind as insanity. Bones have only the substance of thought; they are only an appearance to mortal mind.

[p. 175.] You say that indigestion, fatigue, sleeplessness, cause distressed stomachs and aching heads. Then you consult your brains, in order to remember what has hurt you, when your remedy lies in forgetting the whole thing; for matter has no sensation, and the human mind is all that can produce pain.

Certainly sometimes the prescription will work, but indigestion sometimes arises from cancer, and a half a



dozen causes which, if let alone, never cease and often kill.

A wholesale statement:

[p. 175.] To reduce inflammation, dissolve a tumor, or cure organic disease, I have found Mind more potent than all lower remedies.

But does she not slip, in saying "lower remedies?"

Another wholesale statement:

[p. 326.] To prevent or cure scrofula, and other so-called hereditary diseases, you must destroy the fear and the belief in these ills, and in the possibility of their transmission.

She pays attention also to the humble but torturing boil:

[p. 339.] You say a boil is painful; but that is impossible, for matter without mind is not painful. The boil simply manifests your belief in pain—in inflammation and swelling; and you call this belief a boil.

The nose, ear, throat, bronchia, etc., are interested in this:

[p. 113.] The atmosphere of earth, more kind, leaves catarrh to the atmosphere of mortal mind. Nothing but mortal belief gives colds and coughs, or circulates contagion.

The following quotation, together with what has preceded, conducts the reader to this vital question, which Mrs. Eddy attempts to explain:

[p. 425.] Question.—Will you explain sickness, and show how it is to be healed?

\* \* \* \*

I learned that sickness is an illusion, to be annihilated by Science; that disease is a suffering of mortal mind. Disease is fear made manifest on the body, whether this fear take the form of cancer, consumption, smallpox, or an injured limb.

The fear of dis severed bodily members, or a belief in such a possibility, is reflected on the body—in the shape of headache, fractured bones, dislocated joints, and so on—as directly as shame is seen in the blush rising to the cheek. This human error, about physical wounds and colics, is part and parcel of the delusion that matter can feel and see, having sensation and substance.

Some queer morals have been engendered in her brain. One of them is in this excerpt:

[p. 38.] It is morally wrong to examine the body in order to ascertain if we are in health, and what are our life-prospects; because this is to take the government of man out of the hands of God.

The foregoing instructs us not to examine the body whatever our sensations. Should pimples arise on the body, it is wrong and useless to ascertain whether they are hives, measles or smallpox pustules; not only useless, but "morally wrong." If coughs have racked the lungs and throat for months, it is "morally wrong" to have our lungs sounded and the products of coughing analyzed, to determine whether we have consumption, bronchitis or asthma. And the child showing symptoms of "mortal belief" in scarlet fever or diphtheria should not be examined.

[p. 338, 9.] My critic says, "She calls sin, sickness, and death nothingness, and tries to cure nothing." Here he is right; but he should understand that while arguing the nothingness of error, I do so for the purpose of bringing out the great somethingness of Truth—health, harmony, and holiness. **What Mrs. Eddy Would Not Do for the**

#### So-Called "Sick."

We now begin the description of the treatment Mrs. Eddy would give to mankind when under hallucinations, illusions and delusions of sickness and injuries of every form:

[p. 178.] The so-called laws of health are simply laws of mortal belief, the premises whereof are erroneous.

Everything relating to health and disease is to be thrown away.

[p. 415.] What are termed Natural Science and Material Law are laws of mortal mind. The physical universe expresses the conscious and unconscious thoughts of mortals. Physical force and mortal mind are one.

Drugs and hygiene oppose the supremacy of the Divine Mind, and act against it.

In a word: Mrs. Eddy teaches that nothing in medicine, hygiene, or any special attention to the body is necessary, and they should not be applied by those who believe in Christian Science. And as for examination of the body to ascertain whether it be in a normal condition, it is useless, "morally wrong" and "idolatrous."

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#### DEATH OF HORACE G. CATES.

Early in the morning of Monday, March 27th, Dr. Horace G. Cates died at the Crocker Street Hospital, of which he was superintendent. Eight days before, while preparing surgical dressings for one of the patients in the hospital, he scratched his hand with a safety pin. The infection developed with startling suddenness. Drs. Dillon, Bryant and others were called in and for a week they labored unceasingly, but the poison lead to uncon-

sciousness on Friday night and, as stated before, his death occurred on Monday morning. Dr. Cates was for years assistant chief surgeon for the Southern Pacific Railroad Co., and for several years was chief surgeon for the Pacific Electric Co. He was also for a term of four years coroner of Los Angeles county. He graduated from the Minnesota Hospital College in 1887 and had been practicing in Los Angeles county ever since that date. He was of Quaker stock, an honorable, upright man in all his relations of life. He was 47 years old at the time of his death and is survived by a widow (who is the niece of Dr. F. T. Bicknell) and six children.

The funeral which was held on Wednesday, March 29th, was largely attended by his many friends in the medical profession. While very modest in every walk of life, yet he was a man of considerable wealth.

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### EDITORIAL NOTES

Dr. E. L. B. Godfrey has located in South Pasadena.

Dr. Jno. A. Sturges, formerly of Murietta, has now located in Claremont.

Dr. J. Baird of Riverside is convalescing from a severe attack of pneumonia.

An anarchist is a man who believes in living without working and killing without fighting.

Dr. Geo. L. Prentice has located in Garden Grove, Orange county. Dr. Prentice is a graduate of Rush Medical College.

Dr. D. A. Clark of Huntington Beach has been appointed surgeon for the Holly Sugar Co.

Dr. A. Vance Clymer, surgeon in charge of the Southern Pacific Hospital at Yuma, has been spending a few days in Los Angeles.

During the year 1910, according to the report of Dr. Zerfing, Chief Police Surgeon of Los Angeles, 16,817 patients were treated by the doctor and his staff.

Prevention of Hemorrhage in Pulmonary Tuberculosis by the Adminis-

tration of Antogenous Vaccines is an interesting reprint by Dr. Roswell T. Pettit of Ottawa, Ill.

The students of the Medical College at Loma Linda are planning to pass their spring vacation making a temperance campaign throughout Riverside and San Bernardino counties.

The Sisters of Mercy have purchased the hospital at El Centro, Imperial County, from Dr. Virgil McCombs and will enlarge it and materially improve its equipment at once.

Dr. Thompson B. Wright, specializing on the Heart and Lungs, and Dr. W. L. Zuill, the oculist and aurist, have taken offices in the Delta Building, 426 South Spring street, Los Angeles.

Dr. F. E. Stewart of Philadelphia has already made reservations in a Los Angeles hotel for the A. M. A. Dr. Stewart is well known on the Pacific Coast where he initiated the work that culminated in the establishment of the Council of Pharmacy and Chemistry.

Mrs. P. C. H. Pahl has resigned as superintendent of nurses of the Good Samaritan Hospital and has taken a similar position in the Angelus Hospital. Dr. J. B. Cutter, formerly superintendent of the Angelus Hospital, has resigned in order to devote his entire time to his private practice.

For Sale. Bertman 16-plate Static electric machine, with electric motor and all attachments for treatment and X-Ray photography, also vibrator attachment. Telephone 57386 between 1 and 3 P.M., for appointment for demonstration. Edwin O. Palmer, M.D., 124 West Hollywood Blvd., Hollywood.

We have received the following reprint: "Differential Diagnosis of Alco-

holic Coma From Other Forms of Coma. With Especial References to the Care of Unknown Persons Found by the Police on the Streets in a Comatose or Semi-Comatose Condition," by Lewis D. Mason, M.D., Brooklyn, N. Y.

"Gathered Leaves," a Book of Verse made from a Physician's Pad Leaflets, by Dr. Geo. Ross. 12 mo., handsomely issued, \$1.25, postpaid. We have received this delightful book from the author, who is one of the noted surgeons of the South, and whose home is an ideal center of hospitality in Richmond, Va.

The Public Health and Marine Hospital Service of the United States has just issued Bulletin 44 on Acute Anterior Poliomyelitis, by Dr. Wade H. Frost, and Digitalis Standardization and the Variability of Crude and of Medicinal Preparations, by Worth Hale. Physicians desiring copies should send their requests to Surgeon-General Walter Wyman, Washington, D. C.

Dr. Rea Smith of Los Angeles writes as follows: "A statement appearing in the Bulletin of the Los Angeles County Medical Society, March 3, has given rise to a misunderstanding that, in fairness to all parties concerned, I wish to correct. Although I was ably defended in a malpractice suit by the State Society, yet the Fidelity and Casualty Company co-operated with the State Society in every way and paid all court costs. I received nothing but fair treatment from the insurance companies as well as the State Society."

William Worrall Mayo, M.D., of Minnesota, died in Rochester, March 6, aged 91. He was born near Manchester, England, received his preliminary education at Manchester



College, and took his medical lectures at the Indiana State Medical College in 1852, and at the University of Missouri Medical Department. He first settled in Lafayette, Ind., but soon moved to Rochester, Minn. Dr. Mayo was the pioneer surgeon of the Northwest and established a reputation which has resulted in making Rochester the surgical Mecca of the United States. Dr. Mayo was well known in Los Angeles. While the reputation of his illustrious sons somewhat overshadows his own, yet he might fittingly be called the medical Christopher Columbus of Rochester.

During the meeting of the American Medical Association in Los Angeles beginning June 26th, Major Gorgas of the Panama Canal; Dr. Walter Wyman, Surgeon-General of the Public Health and Marine Hospital Service; Dr. W. H. Welch of Johns Hopkins University, and Dr. W. A. Evans, Health Commissioner of Chicago, will deliver lectures on sanitary matters in Los Angeles. Dr. Evans of Chicago says: "It has seemed to me that it was highly desirable in the present state of public opinion in this country, that the American Medical Association should leave some imprint upon the town in which it holds its meetings; that the desirable way to make this impression permanent and beneficial is to make use of the meeting for the purpose of public education on health; a series of lectures given to children and adults engaged in different kinds of work should be arranged. Some of these lectures should be given in churches and some before labor unions, women's clubs, men's clubs, and all kinds of organizations, whose interest in the matter of health it is desirable to have.

The Cincinnati Lancet-Clinic, of recent date, shows the effect of the Ohio

river malaria in the following, which was probably written the morning after:

"The official organ of the American Medical Association is giving pointers in each issue on how best to reach Los Angeles for the annual meeting. It implies that it would be glad to meet a large number of the members in the delightful California city. Now, as the attendance will largely come from the insurgent and progressive West, it seems that it really doth protest too much. With a large influx of visitors from the regions of the country boasting of a La Follette, a Pinchot, a Folk, a Judge Lindsey, not to speak of the idealists of Oregon, and Arizona, and New Mexico, with their glorious State constitutions, the great Association may find itself suddenly in the hands of a progressive democracy. Its tenets would then quickly be altered to conform to the demands of the times; and it is conceivable that weak-kneed delegates from the effete East would find enough aggressiveness lying around to supply them with some splints for the patellar region. So the great medical public of this vast section of the country cannot be blamed if perchance it doubts the Journal's sincerity in painting the advantages of a trip to Los Angeles in such glowing colors."

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#### CHLOROFORM VERSUS ETHER.

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##### Resolutions Adopted by the Eye and Ear Section of the Los Angeles County Medical Society.

Whereas the use of chloroform to produce surgical anaesthesia is recognized by the profession generally as being much more dangerous than ether anaesthesia, many fatalities having resulted therefrom, and whereas the administration of any anaes-

thetic in persons with enlarged tonsils and adenoids is more dangerous than when these conditions are not present, therefore be it

Resolved, That the Eye and Ear Section of the Los Angeles County Medical Society deprecates the use of chloroform for anaesthesia in persons having enlarged or diseased tonsils, and that we place ourselves on record as being unalterably opposed to its use in tonsil and adenoid operations, except there be conditions present in the patient that would render the giving of ether less safe than chloroform.

GEO. J. LUND,  
FRANK D. BULLARD,  
Com. on Resolutions.

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#### PRICES.

Will the physicians who read the Journal answer through its columns, candidly, these questions?

What is the average charge per call, day and night, in the city limits of Los Angeles?

Have any of the brethren ever had people refuse to pay their bills, large or small, on the plea that "they had only CALLED the doctor one or more times, therefore they did not owe him for any of the other calls, or services he had rendered them during a spell of illness?"

I never knowingly undercharge the rank and file of physicians, but unless we, the doctors, get together and form a protective association, as they do in many other cities, and stand by each other, there will be a living for only a fortunate few. Will the editor kindly head the list and express himself.

B. MOSBY SMITH, M.D.,  
314 W. 61st St., Los Angeles.

#### DR. JOHN S. GRIFFIN OF LOS ANGELES.

In the History of the Medical Profession of Southern California by Dr. Geo. H. Kress, as quoted in The Southern California Practitioner for January, 1911, it is stated:

"Then there was Dr. John S. Griffin, a Southern gentleman, graduate of the University of Pennsylvania, who carried a brusque and somewhat forbidding mask to cover a tender, generous heart."

In the Los Angeles Daily Times, March 5, 1911, Major Ben. C. Truman gives the following interesting glimpse of this pioneer surgeon:

"One of the loveliest old gentlemen who ever lived in Los Angeles was Dr. J. S. Griffin, who was a surgeon during the Mexican war and took up his permanent residence here immediately after that conflict had ceased. He was a Virginian, and sympathized fully with the South and secession. And although he remained on good terms with northern people and Republicans hereabouts he always referred to them as Yankees and occasionally as the "damned Yankees"—but generally jocosely. He was tall and gray and handsome and was quite fond of a glass of Kentucky wine, but not to any excess. His sister was the wife of Albert Sidney Johnston, and the death of that distinguished commander at Shiloh, on April 6, 1862, rather intensified the dear old physician's animosity, although the old army officers hereabouts in the 60's liked him, all the same, and he was very fond of them.

"I first met him at dinner at Don Benito Wilson's Lake Vineyard in March, 1867, and we struck up a good feeling for each other that never met abatement; indeed, a few hours before he died he requested Hancock John-

son to see to it that I was one of his pall-bearers. When I took up my residence in Los Angeles in 1872, Dr. Griffin's tens of thousands of sheep roamed over where East Los Angeles and Highland Park, Garvanza and Pasadena are beauty-spots, and where many thousands of people make their homes. Even on the west side of the river his sheep grazed by the thousands.

"Not long after Riverside became a promising colony a number of Indians came to Los Angeles for the express purpose of creating a somewhat like colony to that of Riverside; and in a few weeks they were sizing up Dr. Griffin's San Pasqual ranch (now Pasadena) where, as the doctor used to say, half of his sheep used often to die on account of the scarcity of the natural grasses. At that time I owned the Daily Star, and late at night the doctor often came in and said the Indiana Yankees were 'nosing around the San Pasqual, where a respectable jack-rabbit wouldn't be seen.' One night he came in, stimulated with at least two good slugs of Bourbon, and said:

" 'Truman, I'm going to land those

fool Yankees, sure; they have made up their minds to buy the San Pasqual. I pity them.'

"In a few days, sure enough, the Indians purchased the San Pasqual, and the same night the sale was concluded the lovely old doctor came into my office, not 'three sheets in the wind,' but boozed to the limit of steadiness, and came up to my desk and said:

" 'Truman, I've sold the San Pasqual at \$6.60 an acre, and got the draft in my pocket.'

"And then he went quietly towards the open street door; but before reaching it he turned quickly around, and putting his right forefinger beside his nose, he gave a loud laugh and ejaculated:

" 'Truman, I've got the best of the damned Yankees at last!'

"Less than twenty years afterward, and long before the doctor died, sixty feet on Colorado street sold for more than he received for the whole ranch; and Pasadena, today, 'where a respectable jack-rabbit wouldn't be seen,' in 1872, is a Mecca for many millionaire tourists, and is pronounced one of the jewel cities of the world."

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## MISCELLANEOUS

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### THE A. M. A. IN PASADENA.

The Pasadena Daily Star for March first says:

Eight thousand people will be the guests of Adolphus Busch in June when the American Medical society meets in Los Angeles and Pasadena, and not only will they be welcomed to the famous Busch sunken gardens here, but they will be served a gigantic barbecue there, probably the largest barbecue ever served in the west, if not the world.

Like the golden wedding anniversary dinner for Mr. and Mrs. Busch on March 7, which is destined to go down into history for its lavishness, the great barbecue will be served under the personal direction of Manager D. M. Linnard, of the Hotel Maryland. When seen this afternoon, Mr. Linnard would not make any statement regarding the coming affair, saying that he was not authorized to do so by Mr. Busch, but, of course, it would be impossible to plan such a



gigantic undertaking as the feeding of 8000 people at a single meal without facts concerning the affair leaking out.

It is known that Mr. Busch will pay the entire expense of this great barbecue and will give the entertainment because of the consideration which has been shown him in Southern California. It is also said that he has instructed Mr. Linnard to leave no stone unturned in an effort to make the hospitality to the physicians and their friends worthy of this section and the warm-hearted host giving it.

While no price has been set, the barbecue will probably cost all of \$10,000. There will be several hundred physicians in attendance, and they will be privileged to bring their friends. The entire affair will be in the Busch gardens, and experts in such undertakings will be brought here to care for the affair. Selected cattle will be used and to one Pasadena man, Mr. Busch stated he hopes to have a fine steak for each guest from the choicest cuts of the meat.

Special barbecue ovens and broilers will be built especially for the occasion, and every detail will be worked out weeks in advance.

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#### THE A. M. A. IN LOS ANGELES.

Dr. M. L. Harris of Chicago in a recent number of the Journal of the A. M. A. says:

The Los Angeles Session bids fair to stand out with unusual prominence with respect to the amount and quality of entertaining done by the local profession. The matter is spoken of thus early to encourage members to plan to go to Los Angeles. The occasion will be one of great enjoyment. Some of the entertainments are as follows: On Friday those who have finished their section work will be taken by

boat to the famous Catalina Island and given a barbecue. This trip will be duplicated on Saturday for the others in attendance.

Friday will also be called Pasadena Day. Shortly after noon, when all the scientific work will have been completed, there will be an automobile trip to Pasadena with a Spanish barbecue in the Sunken Gardens. This will be followed by chariot races in Tournament Park, especially arranged for the benefit of the members of the American Medical Association. The day will be concluded by trips to the seashore with entertainments at Venice and Ocean Park.

On Saturday those who do not wish to go to Catalina Island may take a trip to San Pedro Harbor and Long Beach with lunch at the Hotel Virginia.

Other trips in the vicinity, for which especial railroad rates will probably be granted, are to the olive orchards of San Fernando, to the orange groves of Riverside and Redlands and to San Diego, the renowned resort some miles down the coast.

Judging from the inquiries received by various committees, the attendance at Los Angeles will probably be larger than a good many prophets anticipated, who were judging solely by the distance of the meeting-place from the center of the United States. The attractiveness of Los Angeles and the opportunity of various trips are two things which will largely tend to counteract the distance. For this reason we repeat the suggestion of last week, given in connection with the list of hotels, and urge those who expect to go to Los Angeles that they reserve hotel accommodations early. There are plenty of hotels, but those who write for accommodations late cannot expect to have their choice of the best rooms.

## BOOK REVIEWS

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**HYDROTHERAPY:** A Treatise on Hydrotherapy in general; Its application to special affections; the Technic or Processes Employed; and use of Waters Internally. By Guy Hinsdale, A.M., M.D., Lecturer on Climatology, Medico-Chirurgical College of Philadelphia. Octavo of 466 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$3.50 net. W. B. Saunders Company, Philadelphia and London.

This volume—dedicated to Wm. Osler—is a practical handbook on the therapeutics and technic of hydrotherapy. "A patient convalescent from a long illness complained to Dr. Sidney Ringer that he feared he could not resume his usual cold bath. 'Never mind,' said he, 'take a hot one.' He did so, having the water very hot and remaining in the bath only a short time. This procedure he carried out for several years after the illness. The stimulating effect was produced whether the water was hot or cold. Both heat and cold are thermic irritants which, briefly applied, excite the peripheral sensory terminals and thus stimulate." The work is practical throughout and fulfills the purpose.

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**BIOLOGY:** General and Medical. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology, Medico-Chirurgical College of Philadelphia. Octavo of 440 pages, with 160 illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$1.75 net. W. B. Saunders Company, Philadelphia and London.

Dr. McFarland had already demonstrated in his *Pathogenic Bacteria*—which has reached the Sixth Edition—that he could make a statement of scientific facts as interesting as Macaulay's history. This volume in its chapters on The Origin of Life, The Cell, Higher Organisms, etc., maintains his reputation. In 1524 Cardan declared that water engendered fishes, and that many animals spring from fermentation. Van Helmont pub-

lished special directions for the experimental generation of mice. It is almost certain, says McFarland, that life is no longer being generated, and that its original appearance upon this planet took place under circumstances no longer existing.

Infection and Immunity, Mutilation and Regeneration, and Grafting are wonderfully interesting chapters. In the course of the chapter on Grafting the author says: It is not uncommon for a person to donate a sound tooth to another whose tooth is extracted as worthless. Such a sound tooth may be implanted, grow fast and remain useful for a long time. Still while firmly attached and functionally useful it is commonly a dead tooth and would quickly slough away if it were soft tissue.

Results justify the hope that normal kidneys from a normal person killed by accident may be implanted into the body of another whose kidneys are diseased. A knee joint has already been transplanted from one man to another with success.

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**TRANSACTIONS OF THE FOURTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS.** Published and Distributed by John Barrett, Director General, Washington D. C.

This volume is issued by the Pan-American Union. The object of that association is to stimulate interest in and develop commercial relations with the Latin-American republics. This volume is a report of the transactions of the meeting in December, 1909. Even cursory reading shows that these sanitary conferences are important meetings and that the delegates are representative up-to-date medical men.

**PRACTICAL DIETETICS WITH REFERENCE TO DIET IN DISEASE** By Alida Frances Pattee Graduate, Departemnt of Household of Arts, State Normal School, Framingham, Mass. Late Instructor in Dietetics, Bellevue Training Schools for Nurses, Bellevue Hospital, New York City. Former Instructor at Mount Sinai, Hahnemann, and the Flower Hospital Training Schools for Nurses, New York City; Lakeside, St. Mary's, Trinity and Wisconsin Training Schools for Nurses, Milwaukee, Wis.; St. Joseph's Hospital, Chicago, Ill.; St. Vincent de Paul Hospital, Brockville, Ontario, Canada. **SIXTH EDITION** Enlarged and Revised to meet the exact requirements of the various State Boards of Examiners of Nurses. 12 mo. cloth 550 pages. Price, \$1.50 net, postpaid. A. F. PATTEE, Publisher, 134 S. 1st Ave., Mt. Vernon, New York.

This book fulfills its claims. Besides being an excellent treatise and text-book on dietetics, it contains a valuable resume of what is required by the various State examining boards. Every nurse should have a copy.

**INEBRIETY.**—A Clinical Treatise on The Etiology, Symptomatology, Neurosis, Psychosis and Treatment, and the Medico-Legal Relations. By T. D. Crothers, M.D. Ph. X. and 365. Harvey Publishing Co., Cincinnati, Ohio, 1911.

The author of this book has for many years been a prominent and honored advocate of scientific methods in the management and treatment of the victims of drug habit, and has had a very large experience in this his chosen specialty. The book presents the latest opinions of others expert in treating inebriety as well as those of the author. It is scholarly, very complete and should be read by all who attempt to treat cases of alcoholism. Even a cursory reading shows the writer to be able, alert, broad-minded and thoroughly modern in his ideas.

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## ABSTRACTS

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### CURRENT LITERATURE REVIEW. FROM THE GERMAN. MARCH, 1911.\*

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TRANSLATED AND ABSTRACTED BY R. L. CUNNINGHAM, M.D.

Berliner Klinische Wochenschrift, January 16, 1911. Dietetic Treatment of Cardiovascular and Renal Disturbances. By A. Magnus-Levy. Discusses the value of prolonged treatment by a diet very poor in salt content or free from salt, in patients suffering from cardiovascular or renal disease. The diet also applicable to cases of hepatic cirrhosis and to heart disease, though the benefit then is due to circulatory effects alone. Restriction of fluids as so often advised is only of indirect benefit. The article is not particularly original, but presents some interesting case reports.

In the same number of the same journal Allard presents a discussion

upon the subject of "serum-sickness" or anaphylaxis manifestations. Two instances are reported in which the injection of foreign serum was followed by severe and prolonged disturbances, both in men who had previously had serum treatment. The manifestations were combated by camphor and caffen hypodermatically, and in both cases successfully. The article reviews the best of previous writing on the subject of this affection and is valuable chiefly on that account. As a prophylactic measure he recommends the use of sera from various animals, that is that antitoxins be made from several different species and that they be used in as

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\*Read before the Los Angeles County Medical Association, March 3, 1911.



high a degree of concentration as is possible.

The *Deutsche Medizinische Wochenschrift*, January 19, 1911, contains a number of interesting things. Forlanini reports two cases of pulmonary tuberculosis treated by artificially induced pneumothorax in which both sides were treated by this method, the second after the first had healed. He commends the method, especially for early cases of disease.

In the same journal are reports of the administration of salvarsan in malaria and in chorea minor, recurring type. The results claimed are good in all. Bornstein, in the same number, reports his examination of several bodies of patients who died of some intercurrent affections after treatment by salvarsan. The results of his investigation show that the arsenic is carried to the liver, spleen and kidneys and there stored, whether administered intravenously or into the muscle, and is in the circulating blood but a short time. In one body, two weeks after injection by Salvarsan, he found in the liver 6.5 mg., in the kidneys 3.1 mg. and in the spleen 1.8 mg.

In the *Monatsschrift für Geburtshilfe und Gynaekologie* for January, 1911, Doederlein describes, illustrates and discusses his extraperitoneal method of Cesarean section, giving its advantages and disadvantages very frankly. He also reports on 53 cases of pubiotomy with a death rate of 1.8 per cent.

Hellendall, in the above number, reports 4 recoveries following acute dilatation of the stomach. He also compiles 140 cases from the literature, in 86 of which the acute dilatation followed operation, 39 of them gynecological. He thinks the condition is usually due to occlusion of the duo-

denum, and therefore tends to grow worse if not relieved by lavage, ventral decubitus, etc. Atony of the wall of the stomach, following infection in the abdomen or pelvis may cause the condition to appear.

In Virchow's *Archiv*, Berlin, is reported to appear an article by Strada on tumors of the Hypophysis Region. This article reviews 31 cases on record and gives comparative tabulation of the clinical manifestations of tumor in this region and discusses the connection of the hypophysis with the other ductless glands.

P. Rhomer, in *Archiv fuer Kinderheilkunde*, Stuttgart, reports upon 6 cases in which he employed tuberculin in treating children who had tuberculosis, by a comparatively large dose (.2 milig.) after the method of Schlossmann. The result was bad in every instance, though the first effects seemed to be favorable. The action on the organism as a whole was bad, bone lesions developing in some while under treatment, while in one case a fulminating type of the disease appeared on the base of the chronic affection.

The *Berliner Klinische Wochenschrift* for January 2, 1911, contains a most interesting and instructive article on "Typical and Atypical Pulmonary Tuberculosis." He states that diseases that show no tendency to spontaneous cure are not amenable to therapeutics. He has never known a case of acute miliary tuberculosis which has terminated in a cure. The same is said of acute disseminated cheesy bronchitis. He has never seen anatomic changes suggesting even a beginning healing in these conditions. With apical processes no cure is known when the disease extended below the second or third rib, though life may be prolonged; it is impossible to de-

stroy all of the bacilli in such a case. Typical pulmonary tuberculosis begins always in the apex, but the atypical forms may be found in children and in the aged.

A much more encouraging clinical view is taken by K. E. Ranke, in *Archiv fuer Kinderheilkunde* for December, 1910. The article is a long one, but the points emphasized are: 1. True pulmonary tuberculosis in children hardly ever attacks the apices first; 2, the glands and serous membranes are usually the first tissues to be infected in children with tuberculosis; 3, generalized tuberculosis, not in the blood, tends to heal spontaneously; 4, children of tuberculosis parents should be removed to places of safety; 5, in many instances the ephemeral fevers of children are really due to insidious generalized tuberculosis which may never develop to a recognizable form.

Von Noorden has an article on the subject of Diabetes, published in the *Medizinische Klinik*, Berlin, January 1, 1911. He discusses the various types of the disease in their physiology as well as from the clinical standpoint. As might be expected, the matter of diet is considered at some length.

Prof. Carl Koop, of Munich, has published in the *Muenchener Med. Wochenschrift* for January 31, 1911, a report of his results, and impressions, from the use of Salvarsan in 72 cases, 8 of which were not luetic. The dose varied from 0.3 to 0.7 gm. The whole subject of dosage, clinical condition, indication, mode of treatment, etc., is discussed, more or less thoroughly. Without going into the article extensively we shall quote some of the more important of his conclusions. 1. The Ehrlich-Hata preparation is a powerful agent in combating syphilis and its symptoms. 2. Whether it is

possible to cut short the course of syphilis by a single treatment is not capable of answer at present, though it is allowed to hope for such favorable results in certain cases, especially in those recently infected, hardly in infections of long standing. 3. It is certain that with a single application of the remedy results are seen such as have hitherto followed only prolonged treatment by Hg. and K. I. 4. Of all methods of administration employed for Salvarsan, the intravenous infusion deserves preference. 5. Intramuscular and subcutaneous administration of concentrated solutions, acid or neutral is likely to be followed by local necrosis and sloughing, even when strictest asepsis is observed. 6. Undoubted fresh infections should be given the highest possible tolerated dose, intravenously. 7. In the interest of the patient Salvarsan may be combined with the older form of treatment by mercury, though for scientific purposes of testing the remedy, such cases are to be thrown out of consideration. 8. Ambulatory cases should be treated cautiously, hospital residence being vastly preferred, if not absolutely required. If ambulatory cases are treated then the intramuscular or subcutaneous method is to be used, as advised by Ehrlich in the beginning.

In the same number of this Journal are other articles on the subject. One by Treupel and Levi of Frankfort based upon clinical observations of the treatment during one year. Another by Stuehmer, from the clinic of Schreiber in Magdeburg, describing the technique used there in intravenous infusion of the Salvarsan. As every number of every German medical periodical contains from one to half a dozen articles on this newest form of antisyphilitic treatment it is obviously impossible to more than

mention the greater number of them. Most all, however, are favorable to the efficacy of the drug, though there is considerable variation in the degree of enthusiasm shown and in the limitations cited for the preparation. The most conservative writers place Salvarsan on an equality with mercury, the most enthusiastic consider it an inconceivably reliable specific.

Some of the more interesting articles not reviewed here are:

Experiences in the Treatment of Syphilis with Arsenobenzol. By Ehrmann, Wiener kln, Wochenschrift, January 19, 1911.

X-Ray Studies on the Absorption of Mercury and Arsenobenzol After Injection. By Ullmann and Haudek,

Wiener kln, Wochenschrift, January 19, 1911.

Observations on the Ehrlich Controversy. By E. Finger, Wiener kln, Wochenschrift, January 12, 1911.

Ehrlich-Hata 3. Treatment of Syphilitic Diseases of the Nervous System. By Marcus, Muenchener Med. Wochenschrift, January 10, 1911.

Further observations with Salvarsan, by Favento, Muenchener Med. Wochenschrift, January 10, 1911.

Injuries to Auditory Apparatus in Patients Treated by Salvarsan, by Beck, Muenchener Med. Wochenschrift, January 17, 1911.

Salvarsan in Syphilis, by Spiethoff, Muenchener Med. Wochenschrift, January 24, 1911.

## CURRENT AMERICAN AND ENGLISH MEDICAL LITERATURE.\*

COLLATED BY DUDLEY FULTON, M.D., LOS ANGELES, CALIFORNIA.

The New York Medical Journal.

January 21, 1911.

### THE ORGANIC BASIS OF NEURASTHENIA.

(By John M. Swan, M.D., and Chas. Clyde Sutter, M.D.)

Nineteen cases due to cardio-vascular disease; four myocarditis with low blood pressure, one myocarditis with arteriosclerosis, ten arteriosclerosis with high blood pressure, four beginning interstitial nephritis.

Three cases due to pulmonary disease.

Nine cases due to gastrointestinal disease; three cholecystitis, one appendicitis, four very marked constipation, one pyorrhoea alveolaris.

Four cases postoperative.

One case due to scoliosis.

One case due to syphilis.

Four cases due to overwork.

Three cases due to nervous shock.

Seven cases undetermined.

Total fifty-one. Thirty-seven cases dependent upon organic disease, 72.5 per cent.; fourteen cases apparently independent of organic disease, 27.45 per cent.

In conclusion the authors emphasize the necessity of adopting the well-tried methods of examination that serve so well in plainly developed chronic disease as a routine measure in neurasthenics. Many times one will discover underlying organic changes responsible for the disturbance in the nervous equilibrium. The relief of the former ought to be followed by relief of the latter. Such cases should, we believe, not be called neurasthenic; they should be called cardiac, arteriosclerotic, nephritic, toxic, etc.

\*Read before the Los Angeles County Medical Association, March 3, 1911.



**A NOTE ON THE TREATMENT OF  
ASCITES BY THE INTRAPERI-  
TONEAL INJECTION OF  
ADRENALIN.**

In "Studies in Edema," No. 6 (Journal of Experimental Medicine, vol. XII, No. 3, 1910) Fleisher and Loeb reported the results of their experiments on the influence of adrenalin in absorption of fluid from the peritoneal cavity. In conclusion they stated: "Adrenalin injected intraperitoneally increases the rapidity of absorption of fluid from the peritoneal cavity, independently of whether the fluid to be absorbed is hypotonic or hypertonic or is approximately isotonic with the blood serum. The intravenous injection of adrenalin also increases the absorption of fluid, but not so markedly as does the intraperitoneal injection." They further stated that the increase of absorption is not due to increased diuresis, but that adrenalin causes a temporary increase in the osmotic pressure of the blood, that this tends to be maintained under certain conditions, and that they have reason to believe that this increase in osmotic pressure of the blood is the main factor in increasing the absorption.

**THE EFFECT OF TREATMENT ON  
THE WASSERMAN REACTION.**

By Swift. Dec. Arch. Int. Med.

Beside the value in diagnosis the Wasserman reaction is of equal value as a guide to treatment.

There appears to be a parallelism between the clinical symptoms, the efficiency of treatment and the intensity of the reaction. It is best to drop the old rules concerning treatment and be guided more largely by the reaction. In this way many patients in the early stages may be spared unnecessary treatment and late stages,

by continued treatment may possibly be saved from serious visceral manifestations of the disease. Neisser, Bruck, Citron, Lesser and others hold that a positive reaction always indicates active syphilis.

There is no uniformity in the opinions as to the best form in the administration of mercury.

Swift found positive reaction in seventy-six per cent. in the early latent stage in patients who had treatment only by mouth. Seventy-seven per cent. of those who had had internal treatment combined with inunctions or injections, and fifty per cent. of those with injections alone. In the late stage forty-six per cent. positive reactions receiving pill or mixed treatment; forty per cent. in combined treatment and seventeen per cent. injection treatment. By this study there is a superiority of injections over other forms of treatment. Mercuric iodide seems to have given the best results. The apparent inferiority of inunction treatment may be due to careless applications. And Swift believes when given properly as good results are obtained as from any other form of treatment.

**BRITISH MEDICAL JOURNAL.**

December 17, 1910.

**Treatment of Gastric and Duodenal Ulcer.**—E. C. Hart describes his method of treating these conditions by means of dry protein and normal serum. The avoidance of milk itself as a food, and of soups, broths, etc., and of the custom of drinking with meals, is insisted on. Such veto is based on the impropriety of introducing into a stomach that is often dilated, with a corresponding degree of stasis of gastric contents undergoing fermentation, material that aids stasis and fermentation, such as, in par-

ticular, starchy and milky food. The object in the treatment is to give mainly protein food in solid form which will saturate the digestive secretions which are often, in cases of ulcer, not only hyperacid, but hyperpeptic; secondly, to give the food in as small a bulk as possible, consistent with nutritive value. All these objects can be obtained by giving dry meals, mainly of meat, and by never allowing the stomach to go many hours without food. The chief value of the oral administration of a normal serum, whether of a man, horse, sheep or ox, is, in these cases, a local one. Its action in enabling an ulcer to heal is both direct and indirect. Indirectly it is of value on account of the power possessed by mammalian serums to disinfect an ulcer and to check its advance by virtue of the antiferment activities that all such serums possess. In this way obstruction to healing is to a large extent removed.

In addition to the indirect power of normal serums in aiding healing is the marked direct stimulating effect that a serum that is atoxic and sterile has on ulcers. Quite apart, however, from direct stimulation of healing, and from indirectly aiding in cure of an ulcer by inhibition of septic processes, is the action of the serum after absorption in restraining hemorrhage. Previous to 1907 it had been shown by Weil that intravenous injection of normal serums were often of great value in hemophilic and purpuric conditions. With regard to the administration, normal serums should in cases of open ulcer never be given to starving patients or on an empty stomach, as troublesome and even serious symptoms may ensue. The author generally prescribes serum in chronic cases of gastric or duodenal ulcer in doses of ten c. c., three or

four times a day, immediately after food, in one-half ounce of cold water. It must be atoxic, as proved by injection into guinea-pig, and sterile, as shown by the same method or by attempts at culture. It should be stored, if possible, on ice, and is better not preserved by addition even in small quantities of antiseptics, as its antiferment activity is thereby seriously impaired.

MEDICAL RECORD. January 21, 1911.  
CLINICAL VALUE OF THE CAM-  
MIDGE REACTION.

Dr. Lyell C. Kinney, resident physician at the German Hospital, Philadelphia, writes on the Cammidge reaction in the American Journal of the Medical Sciences for December. The urinary examinations, originally proposed by Cammidge, for diagnosis of diseases of the pancreas have been performed repeatedly in the laboratory of the German Hospital with varying results. A fifteen months' trial has been given the reaction, and according to Kinney has caused the investigators to believe that it has a somewhat limited value, although negative reaction does not indicate that the pancreas is normal, for negative results have been obtained in acute and chronic pancreatitis, carcinoma and cyst of the pancreas. Further, a positive reaction is not pathognomic of pancreatic disease, as the reaction is found to be positive in some cases in which there is no evidence, even to direct palpation that the pancreas is not normal. However, Kinney goes on to say, if history, physical examination, and examination of the feces point to the presence of a pancreatic lesion, we may consider a positive Cammidge reaction to be of value in completing the diagnosis. In other words, very little dependence can be placed upon a neg-

ative reaction and a positive reaction can be considered of value only as a confirmation of other signs.

#### IPECAC IN THE TREATMENT OF INTESTINAL AMOEBIASIS.

By Walter V. Brem, M.D., and A. H. Zeiler, M.D.

**SUMMARY.** 1. We despaired of success after four years of experience in attempting to eradicate intestinal amoebiasis by means of rest, dieting, and lavage of the colon. We used copious enemas of normal salt solution, quinine, thymol, and quinine and thymol combined.

2. We have apparently cured 14 amoebic infections with ipecac; 8 with dysentery, followed six weeks to five and one-half months with repeated examinations for amoebae; with dysentery followed less than six weeks; 3 without dysentery, followed two to five months. We have failed to eradicate the infection in four cases, but these were not thoroughly treated.

3. The thickness of the salol coat of the ipecac pills must be carefully regulated so as to prevent vomiting on the one hand, and on the other, the passage of intact pills through the intestinal canal.

4. Probably the best dosage and method of administration is to begin with 60 or 80 grains at bed time and decrease the dose 5 grains daily until a dose of 10 grains is reached. Rapid cures may sometimes be effected by giving 40 grains three times during twenty-four hours.

5. The patient should be at rest in bed and on liquid diet; no solid food or milk should be given for at least six hours previous to the ipecac, and no liquids for three hours previous. No opiate is necessary.

6. Our experience indicates that a large proportion of amoebic infections can be eradicated by ipecac treatment. It is far superior to any treatment hitherto tested, and it should always be given a thorough trial before surgical treatment is attempted.

### FRENCH PUBLICATIONS ON MEDICINE AND SURGERY.\*

TRANSLATED AND ABSTRACTED BY ANDREW STEWART LOBINGER, A.B., M.D.  
SOCIÉTÉ DE CHIRURGIE DE PARIS.

#### Duodenal Ulcer.

M. Quenu had observed a certain number of ulcers of the duodenum, particularly the perforating variety. His first case was in 1885. He was a man giving urgent symptoms of ileus who on opening the abdomen was found to have peritonitis beginning at the site of a perforation in the first portion of the duodenum. The perforation was easily recognizable. M. Quenu believed that a good number of duodenal perforations are mistaken for appendicitis. The surgeon should interfere in the hemorrhagic form—not only in those cases of acute and

alarming hemorrhage is surgical action demanded but those chronic forms attended with repetitional hemorrhage from day to day until a grave and profound anemia ensues, which is fatal in a very brief time.

In these types of cases surgeons having a large experience with duodenal ulcer agree that gastroenterostomy should follow the closure of the ulcer; but reefing of the ulcer presupposes a clear notion of the site of the ulcer and the easy access to it. In a case of this kind where a woman was attacked by an acute ulceration of the duodenum, the hem-

\*Read before the Los Angeles County Medical Association, March 3, 1911.



orrhage caused continuous and exhausting illness with extreme anaemia, M. Quenu performed a gastroenterostomy with exclusion of the pylorus. The operation was remarkably well borne and was followed immediately by a disappearance of the anaemia. That was probably up to the actual hour the only case wherein the exclusion of the pylorus had been practiced in order to put a duodenal ulcer beyond the likelihood of recurring hemorrhages. On that occasion M. Quenu made a historic record of the closure of the pylorus.

#### **Intravesical Segregation vs. Ureteral Catheterization.**

M. Hartmann after reviewing the critical observations of Guinard in two cases of intravesical separation of the urine concludes that in one case the trial was for too brief a period and in the other it was made in a defective manner. Hartmann defends segregation because it is simple and has in hundreds of cases given him excellent results and it is within the reach of any surgeon. Moreover it avoids the introduction of a sound or catheter passing through the infected bladder into the sterile ureter, thereby carrying infection into a ureter which hitherto has been uninfected.

M. Bazy does not refuse to resort to any method, whether the intravesical separation, the catheterization of the ureter or the exploratory operation advised by M. Marion. But he would above all rely on surgery and would for himself prefer catheterizing the ureters. But for those who were unable to perform such technical instrumentation he would recommend the determination of the painful points in the ureters and rely on methylene blue.

M. Leguen has abandoned intravesical separation because he is convinced that in a great number of cases it is not reliable. It is true,

they say, in those cases the instrument was unskillfully applied; but which is to be the criterion as to whether the application is skillful or not? He considered separation useful before the introduction of the other methods but there is now no longer any excuse for the use of it.

M. Pierre Delbet made a report on the work of Luys in which the latter defends the method of intravesical separation of the urine and answers the objections which have been made and submits a criticism of the published observations opposing this method and refutes them. Delbet has done a large number of intravesical segregations with most satisfactory results enabling him to rectify clinical errors.

Citing the cases of Guinard, Tuffier and Marion in which the segregation has led to several errors, he finds only in these errors of interpretation rather serious arguments against the method. If this method is abandoned it is not because it is defective, but because there is a better. He would not advise the giving up of the older method for catheterization is more difficult, complicated and more fatiguing for the patient. Delbet would like to see this method employed as a preliminary procedure where it may prove sufficient or where conditions were unfavorable to the catheterization of the ureters.

#### **Cholecystitis Following Typhoid Infection.**

M. Walther reports two interesting cases of cholecystitis associated with enteric fever. In the first case the infection of the gall bladder appeared in the regular course of typhoid fever at the fourth week; this rapidly subsided but in five months returned. Operation revealed a large stone and definite typhoid infection of the gall bladder. In the other case the chole-

cystitis was subacute, with a violent onset, which occurred at the deferrescence of the typhoid. Intervention became imperative. The gall bladder contained pus only, the gall stones were not present. The operation in each case was a cholecystostomy. Both recovered.

M. Tuffier has operated in three cases of gall stones in convalescence from typhoid. One or two others had recovered spontaneously from the typhoid infection and were ultimately operated à froid. In the three first cases the litniasis clearly antedated the typhoid infection and in each the clinical history was the same. In all of them they were convalescing from the typhoid and the return of the fever made one think of a relapse. All were cured by cholecystectomy.

M. Savarian reports a case of cholecystitis operated for stone in the courses of convalescence from typhoid for acute symptoms.

#### Revue de Chirurgie: Sacro-Coccygeal Tumor.

Curtis and Le Fort ( of the University of Lille) write extensively on a tumor in the sacro-coccygeal region springing from the gland of Laschka. The first observation concerning the neoplasm which may spring from this region was made by Braune who collected a series of so-called cystosarcomas.

The authors of this contribution to the literature of sacro-coccygeal tumor report at length a case of their own from which they present elaborate histologic findings, going to prove that the genesis of these tumors is

not of epithelial origin. These conclusions are arrived at by careful histologic examinations which they conducted by minute study of the arrangement of cells, stroma and blood vessels. It is obvious that this tumor is an angiosarcoma of perithelial type springing from the gland of Luschka. The history of the case reported: Patient was a chauffeur, age 58. Family history negative. Up to five years he was perfectly well. About this time he had a fall on the stairs striking on the coccyx and for several days had severe pain and tenderness in the region of the sacrum. Fifteen to eighteen months after his fall he noticed a tumor at the apex of the coccyx, adherent to the bone though slightly movable. It did not grow any for two years and then began to increase slightly. The increase in growth was very slow and but little from one year to another. At the time of his admission the patient had a hard nodular tumor in the sacrococcygeal region, slightly movable on the bone and movable under the skin. Arborescent veins spread out over its surface. It was ten centimeters long and six wide, firm, slightly movable and without fluctuation. Its removal was easily accomplished and the patient left the hospital after several weeks, apparently well. It was learned that two years later the patient died of extensive recurrence of the site of the first operation—the certificate of death given showing “osteosarcoma of the sacrum.” It was impossible to obtain further particulars relating to the recurrence.

## ENGLISH AND AMERICAN SURGICAL LITERATURE.\*

ABSTRACTED BY JOHN C. HOLLISTER, M.D., LOS ANGELES, CALIFORNIA.

In “Surgery, Gynecology and Obstetrics” for February, 1911, we find an article by Dr. I. C. Rubin of New

York City upon the “Functions of the Great Omentum.”

This article should be read by every

\*Read before the Los Angeles County Medical Association, March 3, 1911.

surgeon, in fact by everyone interested in general or abdominal diagnosis. Evidently Dr. Rubin has given very careful attention to the subject as the article is a pathological and experimental study. After speaking of the older and then of the more recently held theories relative to the omentum he gives a brief anatomical description.

The pathological conclusions are based upon his notes on 100 autopsies made at the Allgemeines Krankenhaus in Vienna and in Friedrichsheim Hospital, Berlin. The work was done under the co-operation of Stoerck and Ghon, Erdheim Wiesner of Vienna, and Pick of Berlin and others. The headings of his paper are:

Incisions: 1) Pathological Observations; (2) Question of Chemotaxis; (3) Power of Omentum to Form Adhesions; (4) Relation of Omentum to Abdominal; (5) Prevention of Omental Adhesions with the Abdominal Wound; (6) Protective Role of the Omentum; (7) Absorptive Action of the Omentum; (8) Reparative Function of the Omentum.

The following are his conclusions:

1. The Omentum has no spontaneous Motility.

2. The Omentum has no demonstrable Chemotaxis.

3. The Omentum has no Intelligent and Spontaneous Protective Role.

4. The Omentum Cannot Restore Vitality to Necrotic Organs, nor vascular supply to those deprived of their circulation. The end product of an adhesion between the omentum and a foreign body is the destruction of the foreign body; between the omentum and any other abdominal viscus is scar tissue.

5. The omentum does not invariably spontaneously repair defects in

hollow or solid viscera; it does this imperfectly in man.

6. The usefulness of the omentum in inflammatory lesions of the abdomen depends upon (a) its power to form adhesions which isolate and render innocuous toxic products; (b) to its power of absorbing eliminating toxic products or destroying them by virtue of its phagocytic elements. But when contrasted with the sequelae, intestinal obstruction, pain, etc., its beneficence is overbalanced.

7. The chief functions of the omentum are those of any other mesentery. (a) Fixation of the viscera; (b) vascular supply.

8. When the omentum is found adherent to an intra-abdominal tumor the probabilities are that the mass is inflammatory and not neoplastic. If the tumor is adherent to a neoplasm the tumor has invariably undergone inflammatory changes.

9. Adhesions between omentum and gall bladder does not necessarily mean inflammation. The adhesion may be a normal mesentery of the gall bladder contributed by the omentum.

10. The best method of preventing adhesions between abdominal incision and omentum consists in the application of a continuous peritoneal suture. Areas of abdominal cavity uncovered by peritoneum lead almost invariably to adhesion formation.

11. The omentum is capable of absorbing large quantities of fluid and particles in suspension.

12. Too much must not be expected from grafts of the omentum. A detached piece of omentum rapidly becomes necrotic and is useless. Only intact portions of the omentum produce serviceable adhesions.

II. In the Quarterly Journal of Medicine, of Oxford (vol. III, 1910, p. 301,



and vol. IV, No. 14, Jan., 1911) is an exhaustive article upon "Chylous and Pseudochylous Ascites," by R. L. Mackenzie Wallis, F. H. A., Schoeberg.

The physiology and chemistry of the subject are thoroughly taken up. A satisfactory outline is practically impossible here because of its length. The literature on the subject is given in detail. One interested in this line of investigation should have this list of references among his own—some 208 references are noted.

III. Dr. Charles Mayo, in an address before the New York Academy of Medicine, December 1st, gave the following observations upon the "Surgical Methods of Treating Hyperthyroidism." (I quote from the Med. Record of Dec. 31, 1910.)

There is a wide range in the changes manifest in the gland before it produces symptoms which we are able to recognize.

The thyroid gland is of invertebrate origin and was originally a sex organ. This association is still retained and is seen in the goitre of adolescence, pregnancy and in goitres which not infrequently accompany uterine tumors, and the temporary congestion of the thyroid at the menstrual period.

He then gives MacCarty's Pathological Classification of the Thyroid. Concerning surgical treatment, he says:

"The operative mortality of simple goitre is very low—due to complications and accidents. The operative treatment of hyperthyroidism is an entirely different proposition. The condition itself often causes death. Reversion of the structure towards

simple goitre may occur at any time or stage of the condition, with, so far as is known, no more cause than that due to its origin. It is a matter of common observation that hyperthyroidism seldom progresses continuously without intermission towards a fatal termination of gland destruction unless it results disastrously during the first few weeks. It is now generally conceded that a reduction in the secretion is desired in hyperthyroidism and to this end many varieties of treatment are employed. The ligation of vessels with nerves and lymphatics included seems to favor a reversion of the hyperthyroid condition to one of simple goitre. The present low mortality is due to a selection of the time for operation with reference to the activity or severity of the condition and the type or extent of the operation. Very serious conditions complicated with dilatation of the heart, fatty degeneration of the heart and liver, nephrites, and possibly edema and cerebral inco-ordination are also benefitted by a ligation of the vessels of the upper poles, at the same time or at separate operations. The mortality in these cases is about the same as for thyroidectomy, but the operation enables the operator to make an effort to relieve some of the patients who are so near moribund that an extirpation cannot be considered. After (a few months) operative thyroidectomy can be made with almost no mortality, especially if patients who have relapsed are again tided over the exocerbative period by the ligation of one inferior artery.

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## THERAPEUTICAL HINTS

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Battle & Co. of St. Louis have just issued No. 15 of their series of charts on dislocations. This series forms a

most valuable and interesting addition to any physician's library. They will be sent free of charge on application,

and back numbers will also be supplied. If you have missed any of these numbers, better write Battle & Co. for them before the supply is exhausted.

Pantopon, the new opium preparation introduced into therapy by Prof. Sahli, contains all the alkaloids of the drug in their natural occurring proportions, in a form quite soluble in water, ensuring high intensity and quickness of action.

Results reported go far to show that with the use of this new combination there are avoided practically all the nausea, constipation and other by-effects which follow the use of the ordinary opium preparation and even morphine itself.

Pantopon is prepared and marketed by the Hoffmann La Roche Chemical Works, 65 Fulton St., New York City.

#### A VALUABLE LOCAL ANAESTHETIC IN ANO-RECTAL SURGERY.

In view of current interest in Quinine and Urea Hydrochloride as a local anaesthetic, a report of Dr. Louis J. Hirschman of Detroit, which appeared in a recent number of the *Cincinnati Lancet-Clinic*, has peculiar pertinency. Dr. Hirschman reports a total of 102 operations, comprising acute thrombotic hemorrhoids, internal hemorrhoids, interno-external hemorrhoids, external hemorrhoids, fistula in ano, perineal abscess, fissure in ano, excision of scar tissue, Ball's operation (*pruitus ani*), hypertrophied papillae, and inflamed Morgagnian crypts. Perfect results were obtained in every case so far as operative anaesthesia was concerned, and in but seven cases was there any post-operative pain. The doctor uses the one-per-cent. solution in all of his cases of ano-rectal surgery when suturing of the skin is required. The technique of administration is the same as that

with weak solutions of cocaine and eucaine.

Dr. Hirschman believes that the substitution of Quinine and Urea Hydrochloride for any of the other anaesthetic salts hitherto employed will prove eminently satisfactory in all cases of ano-rectal surgery in which suturing of the integument is not required. He sums up its advantages as follows: It is soluble in water; it can be sterilized; it is equal to cocaine in anaesthetic power; it is absolutely non-toxic; it has a pronounced hemostatic action; it produces persistent anaesthesia; it is inexpensive.

Quinine and Urea Hydrochloride, in one-per-cent. sterilized solution, is supplied by Parke, Davis & Co. in sealed glass ampoules of five cubic centimeters capacity. An ampoule is opened by breaking off the tip, when the hypodermic needle can be inserted in the neck of the ampoule and the solution drawn into the syringe. Parke, Davis & Co., by the way, issue a sixteen-page brochure on "Local Anaesthesia with Quinine and Urea Hydrochloride," which should be in the hands of every physician and surgeon. The pamphlet details fully the uses of the new anaesthetic, explains the technique of administration, and contains some valuable case reports. A copy may be obtained by writing the company at its home offices in Detroit.

"No man can be happy without exercising the virtue of a cheerful industry or activity. No man can lay in his claim to happiness, I mean the happiness that shall last through the fair run of life, without chastity, without temperance, without sobriety, without economy, without self-command, and, consequently, without fortitude; and, let me add, without a liberal and forgiving spirit."—Good.

## QUESTIONS CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS, APRIL 4-8, 1911.

### GENERAL DIAGNOSIS.

#### Answer 10 Questions Only.

1. Give the symptoms of acute osteomyelitis.
2. Differentiate endocarditis from pericarditis.
3. Give the diagnostic signs and symptoms of aneurysm, involving the thoracic aorta.
4. What is the normal quantity of urine excreted by an adult in twenty-four hours, its reaction and specific gravity, and how does the urine differ from the normal in (a) parenchymatous nephritis, (b) diabetes mellitus, (c) intestinal obstruction in upper portion of intestinal tract, (d) tuberculosis of the bladder?
5. Give the physical signs and clinical symptoms of exophthalmic goitre.
6. Give the diagnosis of uncinariasis.
7. Write a brief description of syringomyelia.
8. Name the varieties of intestinal hernia and differentiate inguinal hernia from hydrocele.
9. Describe the symptoms of failing compensation occurring in an aortic stenosis.
10. Write a brief description of leprosy.
11. Name the cells found in normal blood and describe the blood picture in (a) acute suppurative processes, (b) presence of intestinal parasites, (c) pernicious anaemia, (d) chlorosis, (e) lymphatic leukaemia.
12. Differentiate acute cystitis from acute nephritis.

### PHYSIOLOGY.

#### Answer 10 Questions Only.

1. What are the circulating fluids in the body and their relations to each other?
2. To what portions of the circulatory apparatus are vaso motor nerves distributed? (b) Mention two simple methods of demonstrating the existence of such nerves.
3. What are the effects of breathing (a) condensed, (b) rarefied air?
4. Describe the distinctive characteristics of the contraction of unstriated muscular tissue.
5. What is the function of the myeline sheath of nerves?
6. What are the functions of the spinal cord?
7. What is the significance of spinal reflexes as diagnostic signs?
8. Describe hemolysis and indicate what is meant by the terms "isotonic solution" and hemolysin.
9. Draw sphygmographic tracings illustrating high and low blood pressure respectively.
10. In what three important organs of the body is the existence of vaso motor nerves still an uncertainty?
11. Define, (a) catalysis; (b) enzymes.
12. What are the characteristics of the digestive and absorptive processes in the large intestine?

### OBSTETRICS.

#### Answer 10 Questions Only.

1. In the last days of pregnancy what anatomical land-marks and conditions would guide you in making a diagnosis of position of child excluding digital examination?
2. What are the conditions indicating the induction of premature labor and what do you understand by accouchement force?
3. Describe the corpus luteum and its functions.
4. Give the management of arrested labor in twin pregnancy.
5. In major obstetrical operation what conditions would determine you in making a pubiotomy in place of caesarean section?
6. What do you understand by nubility?
7. In the mechanism of labor describe the normal rotation of the head in (a) O. L. P. (b) O. R. P.
8. What do you understand by pathology of pregnancy? Give four illustrations.
9. What are the symptoms and clinical significance of incarceration of the pregnant uterus?
10. What conditions are necessary for probable success in external version?
11. Give aetiology and means of prevention of ophthalmia neonatorum. What is the explanation of the predominance of head presentations?

### PATHOLOGY.

#### Answer 8 Questions only and Identify 4 Slides.

1. Describe in what way the blood changes in pernicious anaemia differ from those found in simple anaemia.
2. What is the difference between toxins and ptomains in their chemical relationship; the difference in their clinical effects and name three bacteria responsible for each.
3. Describe the conditions predisposing one to cerebral thrombus. What blood vessels and what nerve centers are most likely to be affected and why?
4. Describe the conditions likely to be found in a neglected case of pleurisy at the end of ten days.
5. Describe the changes likely to be found in the kidneys in a case of nephritis resulting from an attack of scarlet fever.
6. What are the most common causes of acute dysentery; what parts are affected and what changes take place?
7. Explain fully how and why arteriosclerosis affects the heart, the kidneys and the brain.
8. Explain why disorders of the urinary bladder are so common and so resistant to treatment in elderly women; (b) in elderly men.
9. Give the pathology of Adams-Stokes disease. At what age is it most likely to occur and the most common causes.
10. Explain the reasons for the persistent high temperature so often found in pulmonary tuberculosis.



**GYNECOLOGY.****Answer 10 Questions Only.**

1. The normal position of the uterus, and the mechanism of its support.
2. Pudendal hernia.—Varieties, contents, diagnosis.
3. Erosion of the cervix, diagnosis from ulcer.
4. Hemorrhoids.—Pathology, etiology, diagnosis.
5. What is the cause of fungous degeneration of the endometrium; symptoms.
6. What is a movable kidney? Etiology, diagnosis.
7. Pruritus vulvae.—Pathology, etiology, diagnosis.
8. Differential diagnosis between appendicitis and salpingitis.
9. Recto-vaginal fistula.—Etiology, diagnosis.
10. Tumors of the mammary gland, diagnosis. Under what conditions would you advise the complete removal of the gland?
11. Backward displacement of the uterus. Etiology, diagnosis.
12. What is caesarean section? What are the indications for its use?

**HYGIENE.****Answer 10 Questions Only.**

1. Name all diseases that need quarantine and length of time that each disease should be quarantined.
2. What is the best method of garbage disposal in a city?
3. Describe purification and utilization of sewage.
4. Give seven preventive measures that should be used to lessen the spread of tuberculosis.
5. What hygienic precautions should be observed in a pregnant and parturient woman?
6. Into what general classes are foods divided? Give examples of each.
7. What are the injurious effects of the excessive use of tobacco?
8. What is meant by the term Typhoid carrier?
9. What should municipal authorities do to reduce infant mortality from digestive diseases in cities?
10. Give the prophylaxis of uncinariasis.
11. Define the duties of a school physician and give the advantages to a community of a medical inspection of schools.
12. Give six desirable factors in the location of a resort for consumptives.

**HISTOLOGY.****Answer 8 Questions Only.**

1. Describe the human Graafian follicle and its contents.
2. Describe minutely an intestinal villus. Make a drawing of longitudinal section.
3. (a) Describe the various papillae of the tongue. (b) Describe and locate the taste buds. Make drawings.
4. What characteristics would enable you to recognize a section from the thyroid gland?
5. Name the varieties of cartilage found in the human body and describe their essential differences.

6. What do you understand by the polar bodies as applied to the maturation of the ova? What purpose or function do they serve?
7. What features would enable you to distinguish a transverse section through the mucous membrane of the vagina from a like section from the same membrane of the uterus? Make drawings.
8. Describe the microscopic structure of the pharyngeal tonsil.
9. Describe the relation between the bile capillaries and the hepatic cells of the human liver. Make diagram.
10. Name and briefly describe each of the different varieties of white blood corpuscles. Make drawings.
11. Examine slides.
12. Examine slides.

**ANATOMY.****Answer 10 Questions Only.**

1. Name the muscles concerned in each of the various forms of club foot.
2. Name the structures indicated by lines in figure one.
3. (a) What arteries form the Circle of Willis? (b) Name the parts of the brain included within this arterial circle.
4. Describe the arterial anastomosis about the elbow joint.
5. (a) Describe the course of an obturator hernia. (b) Perineal herni.
6. Show relation of stomach, liver, spleen and kidneys to the posterior parietes. Figure two.
7. (a) What are the anatomical conditions favoring dislocation of the shoulder joint? (b) What are the principal factors tending to prevent dislocation of this joint?
8. Name the structures indicated by lines in Figure three.
9. Describe the movements of the thorax as a whole.
10. (a) Name the principal structures that are in relation with the solar plexus. (b) Name five plexuses that are off-sets of the solar plexus.
11. Describe the arrangement of the lymph nodes in the anterior and posterior mediastinum.
12. Give the relations of the esophagus.

**BACTERIOLOGY.****Answer 10 Questions Only.**

1. Define briefly Complement, Opsonin, Agglutinin, Amboseptor, Toxin.
2. How would you diagnose a case of membranous sore throat (bacteriologically), and what germs might be found.
3. What is Wasserman's reaction?
4. What is the cause of the following diseases? Furunculosis, Eddemic Cerebro-Spinal Meningitis, Sleeping Sickness, Rabies, Glanders.
5. Discuss (not over one page) Fraenkel's Pneumococcus.
6. How is Plague transmitted?
7. What produces Trichinosis? How would you determine the diagnosis?
8. How would you determine the nature of a Dysentery? What different causes might be found?
9. You are given a sample of blood from a patient suspected of Typhoid, explain how you would determine the diagnosis.

10. Name 5 germs which are usually found in nasal catarrh.
11. How would you stain and examine a specimen of serum suspected to contain the *Treponema Palida*?
12. How would you make a bacterial vaccine in a case of Carbuncle?

**CHEMISTRY AND TOXICOLOGY.**

Answer 10 Questions Only.

1. Demonstrate that air is a mixture and not a compound.
2. Give the occurrence in nature, the preparation and the properties of hydrogen sulphide.
3. Give the names and formulas of four iodides commonly used in medicine.
4. What is the composition of baking powders? How are they adulterated? What is their mode of action? Give action by an equation.
5. Give the three recognized methods of the pasteurization of milk.
6. What are the chemical constituents of lemon juice?
7. Describe the Diazo-reaction and name the diseases in which the reaction is invariably present.
8. Give in detail tests for acetone and diacetic acid in urine. What does their presence signify?
9. What are albumoses and peptones? What is turpentine?
10. A poisoned person has dilated pupils; what poisons would you suspect?
11. What vegetable foods have been known to cause severe food-poisoning? Name poisons concerned.
12. Name the poisons commonly resorted to by suicides.

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**Purified Opium  
With a Fixed  
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**SVAPNIA** possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

Sold by druggists generally.

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*Sample and literature on application.*

## CALIFORNIA HOSPITAL NURSES' ALUMNAE NOTES.

Miss Sally Cartmell, class 1903, is Health Department School Nurse in the city of Santa Ana. Dr. J. A. Clark is Health Officer.

Miss Annie Navel, class 1904, writes: "I am out here near the Black Hills holding down 160 acres of Uncle Sam's land. This is a fine climate for lung trouble. The State Sanatorium for the Tuberculous is located at Custer in this county. With best wishes to the Alumni and to the doctors and nurses in the California Hospital, I am your well-wisher, Annie Nagel, Fairburn, South Dakota."

The California Hospital Nurses' Alumnae Association met last Mon-

day, March 27th, at the directory rooms, 1103 West 8th St.

The topics discussed were the uniformity of uniforms and the importance of having a nurses' directory.

On the latter subject Mr. Mason gave an interesting talk on his experience in other States where no directory exists; and urged that more attention be given to the maintenance and improvement of the directory.

Miss Eva Johnson, chairman of committee of Isabelle Hampton Roff Scholarship Memorial Fund of Los Angeles County Nurses' Association, desires to raise \$200. There are two hundred members of the association, so that it would only require a con-

tribution of one dollar from each member. It is to be hoped that the members will promptly respond to so worthy an object.

Miss Mitchell has resigned from the Alumnae and Nurses' Directory as she does not intend to continue nursing.

Miss Sallie Cartwell, class '03, has resigned her position in the Ventura County Hospital and Miss D. Graves, class '04, has accepted the position.

Miss Rousseau has accepted a position in the Calumet and Arizona Hospital at Bisbee, Ariz.

Miss Nettie Johnson has returned from her eastern trip.

Miss Mulvey has a patient at Coronado Hotel.

Miss Grant has resigned her position at the Wyoming General Hospital and returned to take up private nursing in Los Angeles.

Miss Anna Mortensen, class 1909, writes from Vienna, as follows: "Brother" (Miss Mortensen's brother is Dr. W. L. Mortensen, the well-known physician of the Palms, Los Angeles county) "and I are spending the winter here in Vienna studying. I am taking laboratory work and find it very interesting. We have enjoyed Europe, especially Italy, very much, but will be glad when July comes and we reach home."

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#### A GREAT DOCTOR'S PRAYER

O thou great Bestower of health, strength and comfort! grant Thy blessing upon the professional duties in which this day I may engage. Give me judgment to discern disease and skill to treat it; and crown with Thy favor the means that may be devised for recovery; for, with Thine assistance, the humblest instruments may succeed, as without it, the ablest must prove unavailing.

Save me from all sordid motives; and endow me with a spirit of pity and liberality towards the poor, and of tenderness and sympathy towards all; that I may enter into the various feelings by which they are respectively tried; may weep with those that weep and rejoice with those that rejoice. And sanctify Thou their souls as well as heal their bodies. Let faith and patience, and every Christian virtue they are called upon to exercise, have their perfect work; so that in the gracious dealings of Thy spirit and of Thy Providence, they may find in the end, that it has been good for them to have been afflicted.

Grant this, O Heavenly Father, for the love of that adorable Redeemer who, while on earth, went about doing good, and now ever liveth to make intercession for us in heaven. Amen.

This prayer was made one hundred years ago by Dr. John Mason Good, a celebrated English physician, whose work on "The Study of Medicine," was one of the medical classics of his day.—The American Journal of Clinical Medicine.

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#### WRIGHT'S SOLUTION FOR DRAINAGE.

This solution is composed of sodium chlorid 4 per cent and sodium citrate 1 per cent. in water. Sodium citrate (1 per cent) in solution causes a precipitation of calcium salts in the lymph, removing thereby that which is essential to coagulation. The presence, then, of the sodium citrate in the wound cavity ensures a comparatively free exit of the lymph discharge. The sodium chlorid, in hypertonic solution (4 per cent.), by osmosis brings about a flow of lymph through the walls of the cavity, the sodium citrate having dissolved clot and prevented further coagulation. Thus there is brought about a continuous pouring forth of lymph of high antitrophic



“specific medication for all diseases would be truly utopian. Fortunately, personal idiosyncrasies the principal factor in the interference of the establishment of internal medicine as an exact science, have no bearing upon a definite treatment for a definite pathological condition, such as is manifested by inflammation, notwithstanding its etiology.

To normalize circulatory disturbances, whether deep-seated or superficial, is the first thought in the consideration of inflammation, and the application of hot moist heat, which relieves tension and stimulates arterial and capillary circulation, is acknowledged the definite procedure.

In the employment of hot moist heat for inflammations, antiphlogistine possesses many superior advantages. By its selection you do not expose your patient for frequent dressings, as it retains its thermic value for hours.

Its action is antiseptic as well as antiphlogistic and unlike some extemporaneously prepared dressings, it is not a culture medium and therefore is adaptable in open wound conditions.

The continuous and increasing popularity of antiphlogistine by professional preference, best indicates its reliability as a definite treatment for all inflammations.”

power from the blood stream and lymph spaces, through the walls of the abscess cavity and out through the wound. The 4 per cent solution is in itself antiseptic since bacteria will not grow in it. The abscess is opened by a wound as small as will allow the cavity to be wiped out, or thoroughly emptied by expression. The skin round the wound is thoroughly cleaned with 70 per cent alcohol.

The skin in this region, up to the very mouth of the wound, is smeared with boric acid or eucalyptus vaselin. If the skin tension closes the lips of the wound a bit of rubber dam may be put in. The wound is covered with a voluminous pad of gauze or of absorbent cotton covered with gauze, dripping wet with hot salt and sodium citrate solution. A many-tailed bandage or some other application holds the poultice in position and the part is put at rest. Outside the dressing may be applied a hot flaxseed poultice or a

hot-water bottle. In any case, as often as the dressing gets cold more of the hot solution is poured over the whole dressing to wet and warm it again, or the dressing is removed and the whole part is soaked, if possible, or bathed with the same solution. The amount of sodium chlorid in this solution is such that it will irritate the skin and lead to pustulation in a few days. Hence the frequent application of protective vaselin to the unbroken surrounding skin. This solution is contraindicated if there is a tendency to persistent oozing of blood from the wound. It is also contraindicated when the formation of protective adhesions is desirable, as in certain abdominal wounds just after operation. The solution should be used only for the first 36 to 72 hours after operation, during the acute stage of the inflammation. If used longer it leads to maceration and indolence in healing.—[L. R. G. Grandon, in Journal A.M.A.]

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# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, MAY, 1911.

No. 5

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## PUERPERAL INFECTIONS—CAUSE AND TREATMENT.\*

BY THOMAS J. WATKINS, M.D., CHICAGO, ILLINOIS.

With the hope of obtaining a broader view, infections will be briefly discussed before puerperal infections are considered.

There is much more interest in infections today than in any other department of medicine; in fact, most of the advance made in medicine during the last decade has been in infections. It is also a fact that in most of the other diseases we know but little more now than we did a few years ago.

I wish to speak of infections and not of inflammations. Many seem to have the idea that inflammation is a disease; infection is the disease and inflammation is nature's reaction against the invasion of infective material. Inflammation is essentially protective and not destructive.

The clinician has not kept pace with the pathologist in the study of infections; the clinician's treatment of infection is often bad—it is often meddlesome and not uncommonly

dangerous. The disease is chiefly systemic and not local, and the treatment should be chiefly systemic and not local. Much of the treatment of infection continues to be based on the idea that infection is a local and not a systemic disease.

You may ask why the treatment has not kept pace with the advance in the modern knowledge of infections. The reply is that the clinician is suffering from a lot of harmful traditions. The clinicians generally understand the pathology of infections, but their treatment has not kept pace with their knowledge. When the profession first learned that infectious diseases were bacterial in origin, it was natural that the disease should then have been looked upon as a localized process, and as a result the treatment became largely a localized treatment. The clinicians to a large extent deserve credit for finding out that the systemic is more important than the local infection. This is espe-

\*Read before the Los Angeles County Medical Association March 17, 1911.

cially true in bacteriologic studies of infections of the Fallopian tubes, of the ovaries and of the gall-bladder. It was found that when operations were done during the acute period of the disease that bacteria were found at the site of the infection and it was very often found that when the operation was done in the interim there was an absence of bacteria. This was particularly true of infections of the Fallopian tubes. Then it was found that there was a very close relation between the febrile reaction and the presence of bacteria in the tubes. When the tubes were removed during the febrile condition, bacteria were found—and when the tubes were removed after the febrile condition had disappeared bacteria were absent. It soon became generally understood that the bacteria disappeared not as a result of the local treatment but by the production of an immunity—that the febrile condition persisted until an immunity developed—that the bacteria were present until the immunity developed; when the immunity developed the bacteria disappeared. We have found that the inflammatory exudate at the site of the infection has very little tendency to disappear until an immunity is developed.

I will not say much about immunity as Dr. Black will discuss that subject better than I can. We have had some interesting experiences in relation to immunity, the presence of bacteria and the duration of the disease. We have found, for example, in cases of acute pyosalpinx, if the Fallopian tube is removed without spilling any pus, in the most careful surgical way, that the operation does not shorten the disease, and that the acute illness lasts three to six weeks. It does not make much difference as regards the duration of the acute disease whether

the pus tube or the septic ovary is removed or not. It is little more liable to prolong rather than to shorten the acute disease. The explanation is this: In the removal of a pus tube, for example, there are relatively very few bacteria removed, as the bacteria permeate all the tissues and fluids of the body. The operative procedure always cuts down the physiologic resistance, resulting from the traumatism, shock, the anesthetic, and the inability to take food for a time.

A few years ago we had an impression that the bacteria multiplied at the site of the infection. That was especially true of puerperal infection and of infections of the Fallopian tubes. We now know that the bacteria multiply throughout the body. Formerly we had an idea that the infection would continue until the localized inflammatory condition was removed, and we know now that the opposite is usually true.

For some years we have been changing very much the treatment of puerperal infections. In going over the records I find we have taken care of about eighty cases of puerperal infection in the last five years. They have been mostly hospital cases, usually quite severe ones, as many of them are sent to the hospital because they are supposed to need an operation. They are very often sent to the hospital because there is fear that the patient is going to die. Very frequently, in about fifty per cent. of the cases, the patient has been curetted once or twice, has become very much worse and is then sent to the hospital. I mention these points to show that the hospital cases are usually the severe ones.

We have been following a routine treatment in these cases. It consists



in this: A careful history is taken, and a complete examination is made, excepting that a vaginal or intra-uterine examination is not often made. The blood examinations consist largely in white counts. We have made some blood cultures, but that very often disturbs the patient, and the result is often disappointing. We do not often make a bacteriological examination of the uterine or vaginal secretions, as such examinations are often disappointing—and the result of the examination does not make any difference in the treatment. Yet I would not discourage these bacteriologic examinations, for they may add something to our knowledge of the subject.

The treatment is very largely systemic. The local treatment is very secondary to the systemic treatment. The treatment is very similar to the treatment generally used for tuberculosis, namely, to hasten an immunity. It is not necessary to refer here to the treatment of tuberculosis, for probably nowhere is that subject better understood than it is in California. In the supportive treatment we pay most attention to three or four things. We believe that the patient obtains her strength—as we all do, more from food than from anything else. Much attention is also paid to hygiene; we give these patients all the outdoor air possible. As soon as she is able, the patient is taken to the roof and kept outside five or six hours a day, and given sun baths. As soon as these patients are gotten outside they take about twice as much food as when they are indoors. For diet we give them milk, eggs, meat juice and anything nutritious that is easily digested. We have a fixed rule that these patients get at least two quarts of liquid in twenty-four hours, and if that is not well tolerated by the

stomach, it is given by enema. We have practically stopped the continuous saline and give it in half-pint or pint quantities. We do this because the patient is usually very much less disturbed when it is given in half-pint or pint quantities, than when given the continuous saline, and the rectum does not become so sensitive. Unless great care is taken the continuous saline is liable to be given at too low a temperature. The enema is given with the bag as low as possible consistent with its running. Observation leads us to believe that disturbances from enemata is very often due to the high pressure rather than to the fluid used. There is often nausea and vomiting when the enema is given with high pressure. If the patient is in a typhoid state, as we sometimes see them, and the stomach unable to retain much fluid and the kidneys are not acting well, we often raise the foot of the bed and give them a large amount of liquid by bowel. In those cases the stomach often responds to that treatment better than to any other. In very acute cases an ice bag is placed over the abdomen. The value of this, however, is problematic.

The patient receives a large amount of rest. We see to it that she sleeps six or eight hours a day. None of us feel well unless we get a large amount of sleep. We know that the power of resistance is much greater in the morning than at night, probably as a result of sleep. We give these patients hypnotics or opiates sufficient to produce six or eight hours' daily sleep.

For cathartics, we usually use enemas, generally salines. As regards medicines, we are giving very little. We have stopped almost entirely the use of ergot, which was very generally recommended a few years ago. The

uterus, if not very septic, will contract itself, and if so septic that it will not contract, we cannot expect much from ergot; it often interferes with the taking of food. The same can be said of the use of alcohol. A few years ago the chief remedy in the treatment of infection was alcohol in some form, but it has been shown that the opsonic index is cut down by the use of alcohol. The clinician has found that such patients take less food when given alcohol and it has been found, too, that it often interferes with rest and sleep. As a stimulant, Dr. J. L. Miller wrote a classical article some six months ago, in which he proved that alcohol is a very unreliable stimulant. It is a waste of time to discuss whether alcohol is a food or not when there are so many other things that we are certain are foods. Tonics are sometimes used to increase the appetite; stimulants are not used as the patient needs rest, not action.

We never make vaginal or intra-uterine examinations without positive indications. Abortion cases are frequently brought to the hospital with the fetus in utero. If the cervix is rigid and not much dilated, the uterus, cervix and vagina are packed with gauze and occasionally those patients are given small doses of ergot to bring on contractions. That gauze is left in position twenty-four to forty-eight hours. When removed it is often found that the uterus has emptied itself or that the cervix has sufficiently dilated so that the uterus can be easily emptied without traumatism. If the cervix is still rigid, we repack. We have found such cases with a temperature of 105 deg., have packed them and we have found the temperature normal the next morning.

It may be said without criticism that the clinician has very much over-

estimated the dangers of retention of the fetus or placental tissue in the uterus after infection has taken place. If they remain twenty-four to forty-eight hours is of very little importance. The inside of the uterus is never examined unless we are positive that something is retained. If the patient has hemorrhage, the uterus is explored. It means that there is some placental and decidual tissue that should be removed. If there is a very large amount of discharge, we sometimes explore the uterus with the finger, but we never empty the uterus until it can be done without much traumatism. The presence of decomposed placental or decidual tissue is probably not as serious as some of us suppose. I was brought up on a dairy farm and I remember that among the animals placental tissue was often retained eight or ten days, and those animals never died. I remember but one that died and that was after the removal of the placenta.

It is interesting to recall that the most acutely sick puerperal women do not usually have retained placental or decidual tissue and do not have an offensive discharge. The offensive discharge cases usually recover. You may say that the cases with an offensive discharge are infected with putrefactive bacteria, which are not very virulent. This is true and yet the putrefactive cases are often mixed with the more virulent bacteria. We do not know that the putrefactive bacteria do very much harm. It is possible that they help to destroy the other bacteria.

The uterus is never curetted and it seems from what we know of modern pathology that there can be no logical excuse for curetting a septic uterus; and yet it is a very common practice and one observes in the literature

that it is still advised. The Germans some years ago emphasized the importance of not scraping away the protective leucocyte wall from the uterine cavity. In a puerperal uterus thrombi always form in the sinuses and we know that bloodclots are good soil for bacterial growth. When one curettes he is very apt to dislodge those septic thrombi and thus get an embolic infection.

The question of curetting a septic uterus is, I believe, one of the worst habits that has been handed down in the treatment of puerperal infections. No surgeon would scrape off an infected, suppurating wound in the hand with a sharp instrument. He would put on a wet dressing and remove any dead tissue which could be done without much traumatism. That is intelligent surgery. The surgeon keeps on a moist boric acid, sterile water or normal saline dressing. The uterus always has this wet saline dressing as it is constantly bathed in an autogenous saline serum solution.

Many of these cases have an inflammatory exudate in one broad ligament or the other, sometimes in both, or in the cul-de-sac and it at times extends to the umbilicus. With these patients our treatment is about the same, it is largely supportive. I have not my figures here, but of the eighty cases, some thirty had an intra-peritoneal exudate and in practically all of those cases the exudate disappeared under supportive treatment. We found that the exudate usually remained about the same size as long as the patient had fever and as soon as the fever disappeared the exudate was rapidly absorbed.

We were formerly in the habit of operating on these cases and the mortality was rather high. Of these eighty cases there was a mortality of

only one, excluding the cases of suppurative peritonitis, where there was a pelvic exudate and in that case there was a very large abscess that was opened and reopened, and she finally got a peritonitis and died.

The average duration of the fever was about eighteen days, about the average duration of a typhoid infection. These are bad patients for operation. They have a low resisting power and the operation tends to cut down the physiologic resistance.

As to the mortality, there were seven or eight deaths. Six of those were acute streptococcus infections that died within a few hours to two or three days after coming to the hospital. Where they have the Hippocratic expression, where the body is so permeated with infection that the muscles of expression are paralyzed, it matters little what is done as death is almost certain.

Comparing the results of this treatment with the results of the more radical treatment of several years ago I would say, that whereas with this treatment we have lost seven or eight of the eighty cases, with operative treatment we would have lost twenty-five or thirty, probably about one out of every four. This is estimated, but I am impressed that it is about the difference.

Sometimes residues of the infection require attention, after the patient has recovered from the acute disease.

#### DISCUSSION.

Dr. Stanley Black: "Immunity."

I was put down for a discussion of the paper from the immunity standpoint, but Dr. Watkins has jumped the fence and left me with nothing to discuss. The whole trend of the paper has been the stimulation of immunity in the patient. The recovery of all these cases rests on the immunizing



power of the blood serum and whatever will best stimulate that is the best line of treatment. Seven or eight years ago Edward Ochsner of Chicago gave an address before this society on the treatment of infection and the method of treatment he had devised from a surgical standpoint. His line of treatment was identical in all respects with Dr. Watkins', i. e., non-interference, and Ochsner explained this very simply as follows: In the acute stage, when there are bacteria in large numbers, if you open the lymphatics by your operation in opening an abscess through an infected wall, in opening these lymphatics you open new channels of infection and you simply increase the danger to the patient. So the proposition is to allow the wall to remain intact. If an abscess has formed and the blood vessels are pressed upon by the distended pus cavity, the lymphatics are also closed, and it is a very simple matter to make a small opening through this anemic tissue and you can drain without very much danger to the patient. Those of us who have studied the infected uterus know that it is not in the interior of the uterus, but that the infection is in the lymphatics throughout the uterine wall and extending out through the broad ligaments. You will find these lymphatics distended and operations on the uterine cavity will do no good except to remove the bacteria there. As to the question of what immunity is, of course we speak of the increase of this resistance of the patient as increased immunity and of the increase of this resistance, gen-dietetic measures are the best. A sound body is the best resistance against all forms of infection, so by stimulating the general metabolism we can reduce the liability to further infection. As to just what factor immunity depends upon, we know very

little. Of course, we know something of the opsonins, and we know the opsonic index is a very important factor, but it is probably not the whole thing, but only one factor. In stimulating the opsonins we can use vaccines, for we know that they will increase the opsonic index. If we can increase the opsonic index by the use of vaccines, we can use the vaccine for that purpose and only for that purpose. To do this, we must know what the bacteria is and it is not always an easy matter to determine this. We may get all forms of organisms in a septic uterus, yet none of them may be the cause of the infection; the organisms that are the cause of the infection may be sealed up in the pus sac. In these cases blood cultures are of very great value for we find practically only those organisms which give rise to the infection in the blood. Of these cases the most dangerous are the streptococcic infections, and in these cases the bacterial vaccines have been of the least avail. Just why, we do not know, but at any rate in many of them it has little effect, and these may be cases of pneumococcus infection, for the pneumococcus is often mistaken for the streptococcus. Rosneau has shown that in many cases that appear to be ordinary cases of streptococcus infection, by a special culture he can show it to be a pneumococcus, i. e. that it is a pneumococcus infection in the streptococcic form. Yet in these cases he has shown that so far the pneumococcus vaccine is of very little avail. But the gist of the matter is the stimulation of the patient by food, fresh air and sunlight in order to give the patient the best immunity she can develop. There is just one other thing I want to speak of. Dr. Watkins mentioned the fact that some of these cases had been cured twice. I know that is true

for when I worked with Dr. Watkins we found that all of our puerperal infections came from unclean hands, those of the nurse or physician. You will notice that in the modern hospital vaginal examinations are rare. The fewer the vaginal examinations the better for the patient and, in the end, the better for the physician. The danger of infection is very great, either from an infected finger or from the carrying of infection from the vagina into the uterus. So today in all hospitals practically no vaginal examinations are made in these cases. Non-interference is the best plan and I know Dr. Watkins has outlined the best method of treatment.

Dr. E. L. Leonard:—Some years ago when this opsonic work was new in this part of the country, I had the opportunity of following up some of these cases of acute puerperal sepsis and other cases of acute blood poisoning with the opsonic index and the use of vaccines. It seems to me that the whole subject of immunity is not contained in this and that the opsonic index is only one of the important factors. I remember one case in particular, the patient being a strong, vigorous man with erysipelas. I had no difficulty in getting the organism and I worked for two or three days trying to get that man's opsonic index up to a point where he was doing two or three times the amount of work of an ordinary individual and finally the man did get somewhat better for a day or two, but he again became worse, yet his index was high even two hours before his death, but he died. So it seems to me that there are so many other things to be considered in fighting an infection. We must know what organism is the cause of the trouble. Only last week I was with Dr. Sherrard and after taking two or three different cultures from the cervix, I

found what I took to be streptococcus. I was able to make but a very small amount of vaccine. After the first thirty-six hours I gave her three million of her own streptococci. Whether it was the treatment or not, she got better and the doctor was encouraged. Forty-eight hours later I looked at the tube and found the brilliant green of the bacillus pyocyaneus. I know that the culture had been taken from the cervix and that there was no contamination from the vagina. Whether in spite of the treatment or because of it, after she had two or three douches of copper sulphate 1:10000, the temperature came down and staid down. For two successive days the temperature was 105 and 106 deg., and the doctor was very much worried about her. It is interesting to me that in this case the doctor pushed the use of the serum—I think she had some 60 c. c. of the streptococcic serum. But the opsonic index is only one side of this question. In addition to the laboratory side of the treatment we must get back to the history, the elimination of the toxins, the elimination through alkaline solutions, which are used on the theory that these toxins are chiefly acid, and then the use of the antitoxins and vaccines. On the advice of Dr. Eversole I have used the autogenous vaccine in one case of mastoid abscess. The muscles of the neck had become involved and he had very small doses of the autogenous vaccine. That patient recovered.

Dr. Henry Lissner:—I have not much to say in regard to the opsonins in particular because the use of the opsonic index, while extremely popular at one time, today is very little used. I have had a great deal of experience with its use. I studied with Wright and got his enthusiasm and worked a good deal with the various forms of bacteria and I have had some

little experience with the question of puerperal septicemia, and so far as the opsonic index per se is concerned, I think it should be thrown out. It is not what we thought it was. In the first place, the personal equation of the individual doing the work; second, the difference in technique; and third, the difference in the virulence of the organisms with which we have to deal, may have some influence. Particularly is this true where the variations in virulence are quite marked. Dr. Black has said that the only value of the vaccine was to increase the opsonic index. If this is its only value, then it is of absolutely no value so far as I understand it.

(Dr. Black:—I said opsonins.)

The work of the opsonins is something that we do not exactly understand. Whether it results in the production of so-called anti-bodies in the blood rendering the process of phagocytosis more easy, or whether it stimulates something in the blood which indirectly renders the bacteria more susceptible to phagocytosis, that we do not know. But we do know that certain forms of infection do respond to the vaccines. We know that each variety of bacteria and cocci has its particular opsonin in the blood, yet we do see cases where the so-called polyvalent vaccine does good and where the vaccine of the specific organism present, e. g., streptococcus, has no effect. I have had considerable experience in the use of the streptolytic serum in the treatment of erysipelas and in no case have I had a good result from the use of this serum. It seems that erysipelas runs its course and that our chief aim must be to sustain the patient and make him comfortable. No case can be approached and treated as a general thing, but each case must be individualized. The quantity of vaccine used depends upon what you

see, upon the amount of toxemia, upon its effect upon the pulse and temperature—all these things must be taken into consideration in deciding on the amount of vaccine to be given. When we sum up, we may say that the opsonic index is invaluable, erratic in itself, as we find individuals erratic.

Dr. C. D. Lockwood:—Dr. Watkins was one of my old teachers and I feel that I have learned very much from him, both then and from this lecture tonight. While an interne in the Chicago Lying-In Hospital I saw many cases of sepsis there following the work of midwives, and we found that the less we tampered with those uteri the better the women got along, and I have found then and since I have been in practice that where a curettage has been done there has been a chill and all the indications of an infection. I am sorry to say that in California sepsis is still very common. I have seen many more cases here than I ever saw in Chicago. I recall two cases where the physician insisted on curetting the uterus. I believe great good will come from this conservative treatment. It is along the lines of curettement with the finger instead of an instrument of any sort, and those cases always did better.

Dr. Grant G. Speer:—I have been very much pleased to hear this lecture and think it will be largely instrumental in shaping some of my own practice. The doctor speaks of his experience on a farm and I believe he and I are the only farmers present. Though I have not had experience with cattle, I have had much experience with sheep, and it seemed to me that those cases of retained placenta became very sick and of those that could not be relieved, many died. The point is, that I object to giving the idea to the young physician that he may leave a large amount



of putrid placenta in the uterus without danger.

Dr. Robert P. McReynolds:—I think we have all probably passed through the same stage Dr. Watkins mentions. I know that when I left the university a few years ago the teaching of the treatment of infection was to operate. We were told that the proper thing to do was to operate, and most of the young men who went out at that time followed this teaching. My experience began with one of these cases. The woman had become very much infected and then came under my care. I did not feel justified in an abdominal operation, so we washed out the uterus. Every day we washed out the uterus and finally one day after we had washed out the uterus the patient died. We did a post-mortem and found that we had been washing out the abdominal cavity and from that time I have been more conservative in my treatment. I have seen a hundred or more of these cases and I cannot recall the number of deaths, but certainly a much larger percentage than Dr. Watkins has mentioned tonight. We would get these cases from all the doctors throughout a large radius. An abortion was performed, an infection developed and the patient was hurried to the hospital. When we got these cases I made it a rule always to find out whether there was anything in the uterus. I judge from what Dr. Watkins has told us that he does not make this a rule. Often we have found a patient with a temperature of 104 deg. or more and after removing a portion of putrid placenta, the woman got well. In those cases where there was no retention of placenta but only a general infection, I made it a rule to let the woman alone. We did give them douches. Whether or not that is of any value I cannot say. In regard to drainage of the puerperal uterus, we

have been more conservative than Dr. Watkins. I feel that to pack gauze in a septic case and leave it as long as forty-eight hours, is not good practice. At the end of twelve hours it must have done all the good it is going to do and it simply acts as a dam and keeps back material that ought to be removed. Several years ago Dr. Pryor of New York came to Philadelphia and reported a large series of cases that had come under his observation, and he insisted that all these cases should be operated upon, making a large incision and packing the whole area back of the uterus. That appealed to me and I have tried it on some cases with good results, especially where the exudate is localized behind the uterus. Those cases are benefited by opening the cul-de-sac and getting rid of the material. One other point regarding the foci of infection. Those cases of infection in the tube are better let alone. If you will let them alone, allowing the temperature to come down, and then operate afterward, you will save your patient. If you operate while they have temperature, you will lose a goodly number of cases. That is not true of appendicitis. We have all seen cases with a temperature of 102 or 103 deg. which were operated upon while the condition was localized, and with the removal of the focus of infection the temperature went down and the patient recovered. It is on just this point that I would ask Dr. Watkins for information.

Dr. Watkins, in closing:—In regard to the use of serum, it would rather seem that less serum is being used in puerperal infections than formerly. Personally, I once used a good deal of serum, now I use very little. Our hope lies in finding the specific serum or vaccine treatment after finding the specific infection. These

cases referred to by one speaker as having recovered quickly after the removal of a small piece of placenta were probably cases of infection from putrefactive bacteria to which I referred. If there is any retained infected placental or decidual tissue it will soon produce an offensive discharge and it should be removed without traumatism, just as necrotic tissue should be removed on a sloughing hand without traumatism. The use of gauze in certain cases does so much more good than harm that I believe it is indicated. The gauze is used to promote uterine contractions, to dam back the blood and secretions and as a consequence the uterus contracts, separates and expels the placental tissue. We have given up the use of douches entirely. If drainage is not good we raise the head of the bed, or occasionally have the patient turn over upon the side. I

am glad the doctor spoke of appendicitis. In those cases the colon bacillus is responsible and there is a constant supply of infectious material from the bowel and that constant supply of infection should be cut off as quickly as possible. In that respect those cases differ from most cases of pelvic infection. Formerly it was believed that the infection was largely overcome by a walling off process, that the abscess wall shut off the infective material from the rest of the body. Now we know that there is nothing in that, especially in pelvic cases the bacteria go through this wall, the bacteria being smaller than the intercellular spaces. When the temperature goes down and becomes normal we know that it is not because the infectious material has been walled off, but because the patient has developed an immunity.

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## THE TREATMENT OF DISEASE BY SPINAL CONCUSSION, SINUSOIDAL AND FREEZING, ETC.

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BY H. E. STROUD, M.D., LOS ANGELES, CALIFORNIA.

It has frequently been charged that Medicine has not kept pace with Surgery, and this will continue to be true until most of our remedies are laboratory products, as, for instance, Antitoxin.

Medicines are used for many purposes and are classified according to their action on the economy; and any therapeutic measures that can be used alone or in conjunction with internal medication should be gladly received and utilized.

Spinal treatment has always appealed to me. To treat the origin of

the nerves seemed more logical than to treat the peripheral endings. I have accomplished much good with thapsis plaster, fly blister, ice, and even the cautery, and with this experience in mind I most gratefully accepted Dr. Albert Abrams' invitation to spend a day in his office and get from first hand practical demonstration of the spinal reflexes as set forth in his book, "Spondylotherapy."

It is not his wish to found a new school of medicine, but to give to the medical profession one more means of relieving suffering, and to show

why some most irregular practitioners are obtaining results that we fail to obtain.

In order to obtain the reflexes that are at our command, it is necessary to proceed in the right manner. Concussion means a series of blows, and while there are some expensive electrical and compressed air instruments on the market, a piece of solid rubber 1x3 set in any kind of handle, answers the purpose admirably, and a piece of linoleum or rubber-covered wood answers well for a pleximeter. In addition to concussion, the sinusoidal current of electricity is a most potent means of stimulating the spinal reflexes of contraction or dilation. The test of efficacy is this: If one pole be applied to the sacrum, the other to the fourth and fifth cervical vertebra. If the current converts the normal resonance of the lungs into dullness, the machine is efficient, but if not, it is worthless.

Instead of fulfilling the insane claim of reducing dislocations of the spine, the Osteopath by his manipulations elicits, without knowing it, spinal reflexes that may be most beneficial or injurious if misapplied. To further dilate a dilated heart or aorta would result in a positive and perhaps a lasting injury.

That these cults have no claim to priority is proved by the fact that the Doctors Griffin in 1834 tabulated 148 cases of spinal diseases treated by manipulation.

Osteopathy was founded in 1874, and chiropractice in 1885, and to these a number of other spine-pulling off-shoots have since been added. All of these most indignantly deny that they practice massage at all. Yet massage increases the flow of blood and lymph through the part, 300 per cent. It abolishes fatigue and increases resistance. It increases peripheral circula-

tion, increases oxidation and relieves internal congestion. In tissues that can be reached, it hastens absorption of exudates and breaks up adhesion. In infected joints, massage, if carefully done, increases the opsonic index, and there is a general sedative action that promotes normal sleep. Yet ten minutes' attention to the spine will improve the pulse and temperature more than an hour's manipulation of the body if the spine is omitted. It is time we utilized our long-known knowledge that the spine is really a brain center. Impulses are given off at the rate of about ten a second. We have it in our power to so influence these impulses by sinusoidal electricity, concussion, freezing, heat, cold, cupping, blisters, etc., that surprising results ensue.

As a practical working basis for spinal treatment the following summary may be helpful:

Concussion or sinusoidalism of the 4th and 5th Cervical V, contracts the lungs; applied to the 7th Cervical, contracts the heart and aorta and strengthens the heart action; applied to 2nd and 3rd Dorsal V reduces blood pressure; applied to 3rd and 8th Dorsal, inclusive, dilates the lungs; applied to 8th to 12th, dilates heart and aorta; to the 11th and 12th Dorsal, dilates the stomach, liver, spleen and intestines; applied to the 1st, 2nd and 3rd, Lumbar V, contracts the stomach, liver, gall bladder, spleen, intestine and uteri; the 4th and 5th Lumbar V contracts the bladder.

With these facts established the folly of running up and down the spine with vibrators is apparent. All kinds of conflictory reflexes are stimulated. The best electrical apparatus for spinal work is the McIntosh Poly-sine generator. The rapid and slow



sinusoidal current generated by this machine are superb. There are two methods of application. Placing one electrode over the sacrum, the other over the site of the reflex desired. Second, with a bi-polar electrode placed over each side of the spine, the nerve root is influenced.

There is no known cure for asthma except climatic, but three cases sinusoidalized over the 4th and 5th Cervical show improvement, but the treatment must be followed for a long time—several months. Concussing the 7th Cervical contracts heart and aorta. Dr. Abrams reports seven cases of aneurism of the aorta cured by concussion, and a number of cases of acute diseases kept alive until the crisis was passed. (Pneumonia)—Concussion of 2nd and 3rd Dorsal reduces blood pressure. This I have demonstrated in my office, but most of my work so far has been in stomach and nervous troubles. As the 11th and 12th Dorsal dilates and the first three Lumbar contract, we must be careful of our location. Almost every case of indigestion presents muscular insufficiency, slight or moderate dilation; deficient Hcl with resulting formation of lactic, butyric and other acids. The indications are to contract the muscular walls, and these strengthened, the distressing symptoms are usually removed. In all cases the test meal with gastric analysis should be employed. One electrode is applied to the 1st, 2nd, 3rd Lumbar V., the other applied over the space of traube, using the slow sinusoidal wave for fifteen minutes, and the bi-polar on each side of the 2nd Lumbar V. for five minutes. It is safe to say in the past twenty-five years I have examined the spines of many hundreds of women, and 75 per cent. have tender spots over the spine, usually from the 3rd Cervical to 6th Dorsal V., yet every one of these hundreds of

patients have told me no physician ever examined their spines before. We have no means that give such rapid relief from nervousness and pain as freezing these tender spines, even the pain of gall stones, gastric ulcers and appendicitis may be relieved by freezing the corresponding vertebrae.

An elderly gentleman, undoubted malignant disease below the stomach; dropsy; pain on eating; pain at night, compelling him to sit up most of the night. The pain yielded to nothing; opiates caused vomiting. Ten spinal freezings and rapid sinusoidal has entirely removed the pain so that he sleeps all night, and as the relief has continued for many weeks, spinal freezing cannot be classed as temporary relief.

A lady nearly insane with nervousness, completely relieved; four freezings of six tender vertebrae.

A lady almost demented with nervousness and pain in the back and arms, completely relieved by freezing.

A man distracted with rheumatism in the knees, shoulders, back; greatly relieved by rapid sinusoidal.

Five cases of indigestion (one treated but four times, malignant disease diagnosed. Patient too ill to come to office.) The four cases showed deficient Hcl and motor insufficiency; a general improvement is noted from slow sinusoidal. Spinal freezing in two cases; one case of aneurism of aorta is under treatment by concussion 7th Cervical V.

To the above, other cases could be cited. It occurs to the writer that the physician is privileged to utilize any legitimate means for his patient's benefit, and Dr. Abrams in demonstrating and classifying the spinal reflexes has given to the medical world a potent measure, and opened up a wide field of usefulness.

Lankershim Building.

## THE PHYSIOLOGY AND PATHOLOGY OF SENESCENCE.\*

BY H. E. MacDONALD, M.D., PATHOLOGIST PACIFIC MUTUAL LIFE INS. CO., LOS ANGELES, CALIFORNIA.

Of the several writers who have deigned to discuss the unpopular subject of Old Age only one failed to accept every opportunity to condemn senescence. In "Age, Growth and Death" Minot remarks significantly: "The medical conception is that old age is a disease. Now that is exactly what I protest against." The writer of this paper would go even further than to make the negative statement that senescence is not a disease. The process certainly is intended to be a beneficent one. But like many other good things, it is harmful when carried too far; in fact, it then assumes all the characters of disease. It appears that disease is either caused by, or occurs in spite of, senescence.

Not many years ago inflammation was looked upon as invariably destructive; now we believe it is primarily reparative, and pathological only when it is carried to excess. Medicine will be benefited when some worker does for senescence what Sanderson did for inflammation—it needs to be rescued from the ranks of our enemies and placed among our friends, where it belongs.

The comparison of inflammation with senescence can be carried beyond analogy. I believe the two processes are identical. The product of a piece of iron is the same whether it rusts or is burned and we infer from this that the one process of oxidation takes place in both instances. The result of both inflammation and senescence is fibrosis and the natural inference is that inflammation is simply accelerated senescence. This view is strengthened by the demonstration

of Metchnikoff that the same agent which produces senescence plays an active part in chronic inflammation. But if senescence is only a slow inflammatory process we might expect the function of senescence, like that of inflammation, to be a protective one. Many facts indicate that it is so.

Probably most scientists believe, with Weismann, that those unicellular organisms which propagate by cleavage are potentially immortal—they divide and re-divide in an endless chain. But multitudes are destroyed by accident or die of starvation. To avoid wholesale destruction multicellular organisms were evolved in which one or more cells retained the quality of immortality while the remaining cells were given the task of protecting the germinal cells. Thereafter in order that the species be perpetuated it was necessary for the germinal cells alone to be immortal and as somatic cells were differentiated for protection the germinal property was lost with equal pace. In other words when eggs, seeds and buds were created death entered the world, but the purpose of death was to insure the continuation of life.

This does not mean the higher the evolution of an animal the shorter will be its life allotment. On the contrary, as E. Ray Lancaster has shown, such animals are the longest lived. Through differentiation the cell sacrifices its own power of division for the good of the body of which it is a part. It follows, therefore, the most highly evolved should live the longest. I believe Prof. Lancaster is wrong, however, in assuming that the life of

\*By senescence is meant the evolution of the body which results in senility.

mammals is particularly shortened by the reproductive function. Most animals die shortly after the reproductive period because nature has quite accurately struck the golden mean—she has availed herself of as rapid senescence as was found to be compatible with reproduction.

In addition to accident and starvation the body encountered a most formidable enemy in parasites and it became necessary for some special means to be devised for combating them. The first cells to be set apart for this purpose were the macrophags. The duty of these cells is to toughen the entire body and, in case of parasitic invasion, to isolate the infected region with a wall of connective tissue. But this toughening process, which is the most characteristic feature of senescence, is accomplished at the expense of functioning cells and the local accumulation of connective tissue is simply local senility. Thus the same agent which protects temporarily destroys ultimately.

Microphags and serum glabrificins are later and improved instruments of protection. By actual count the microphags in the blood increase in number with the advance of years and transfusion experiments show that the blood of infants is most nearly free from anti-bodies. In these things, again, senescence brings protection.

Our ancestors resisted infection best when they entertained sufficient inflammation to stimulate the above protective forces and through natural selection mankind came to inherit the process of inflammation in the absence of an irritant agent. Inherited senescence is simply anticipative inflammation, but, as we shall see later, the process is always accelerated by the growth of bacteria in the individual.

The amount of fat in the body increases gradually with age. This mark of senescence protects the body from cold and external forces. It is also a storehouse of energy. But, like the other characteristics of senescence already mentioned, the accumulation of fat may be carried to excess. Shortly before death from senility the amount of fat decreases because digestion is hindered by senescence. The natural plumpness of the baby may be due to a recent attempt at self adjustment on the part of nature. Infants have more fat and more macrophags than adults because during infancy both are greatly needed.

In any severe combat with external forces the children are the first to succumb. This is due to the size and strength of the adult. But if the exposure stops short of death the children most quickly and surely recuperate. They have great vitality, but little resistance, which means the differentiation of cells has not yet crowded out the germinal property, but nature has not had time to erect in them the defences that come with senescence.

Children sometimes perish of apoplexy and other cirrhotic diseases and the aged often die of infections, but the former is due to premature senescence and the latter to the ultimate failure of the senile heart to keep the blood pressure high enough to resist bacterial invasion. The prevalence of infections among the young and degenerations among the old certainly indicates that senescence both protects the body from microbes and produces degenerative diseases. The child is succulent and a good culture medium, but we should not expect the man toughened by senescence to be very inviting to germs.

It may be said also that men who age slowly are longer susceptible to



zymotic diseases, and that those who inherit a tendency to become prematurely old are very refractive to infection. I have often noticed that patients with sclerotic arteries resist bacterial invasion well and it is generally appreciated that those with a low blood pressure (which excludes sclerosis of the visceral arteries) are exceedingly vulnerable.

It appears, therefore, that those processes which produce the marks of senility are also the means by which the body is protected from parasitic diseases and it follows so long as we are compelled to live in an atmosphere laden with microbes we should encourage senescence in early life and although we should discourage it as soon as the danger of zymotic disease is over.

To one who has studied mortality tables it is evident that in the matter of resistance families may be divided into two classes which, for want of better terms, may be called the tender and the indurated. The former are susceptible to bacterial diseases, the latter to the degenerations that follow fibrosis. As all men at some period in life pass from the danger of germs to that of degeneration the only difference between the two classes is in the age at which the transition takes place. Members of tender families are in danger, for a longer period, of contracting bacterial diseases but, these escaped, they live to be very old before senescence destroys them. On the other hand members of indurated families resist infections well, but grow senile early. Somebody in gathering statistics has made the mistake of heading one class "Lack of resistance or of longevity in the family"—thus placing men with antipodal characters in the same class. Senescence should be stimulated in

the tender and retarded in the tough. What is good for the tender is bad for the indurated and what is curative in zymotic diseases is poisonous in the cirrhotic.

Insurance companies look with suspicion upon the applicant whose family history gives indication of his belonging to a tender family. Statistics show, however, that an individual with a tuberculous parent is eligible to live longer than one with healthy parents. Like all others belonging to the tender class, he is in excessive danger of the infectious diseases, but, in a germ-free district, there is a good chance of his becoming a centenarian. A man with tuberculosis in the family history is a decreasing risk—dangerous for term insurance; much better for a whole life policy. Individuals with apoplexy in their parentage belong to the tough or indurated class. They are good risks while young, but grow hazardous as the years go by; in other words cumulative risks—safe for term insurance, but dangerous when insured for life.

Every infection accelerates senescence and hastens the change from the tender to the indurated class and in this way shortens longevity because the fortifications builded in the individual are very similar to those we inherit. I once suffered a single attack of tonsilitis which perceptibly hardened the radial arteries. Harboring bacteria is incompatible with an extremely long life but, like vaccination and the administration of bacterins, mild infections increase resistance and may be beneficial in early life.

Indians and negroes belong to the tender class. They have not been exposed to the bacteria of civilization long enough to inherit the necessary resistance, but as resistance spells

senescence they grow senile slowly and produce the largest number of centenarians. If I were attempting to produce a bi-centenarian I should choose a picaninny or papoose born of tuberculous parents, taking it immediately after birth to a bacteria free locality. Any mortality table that does not cover a century or more is unfair to these races.

Civilized people are the most highly indurated. The crowding into cities has favored the multiplication of parasites and only the individuals of the greatest resistance have survived. Thus through natural selection inherited immunity has increased, but cirrhotic diseases, which are the end results of immunity, have increased at the same rate.

The centenarian is noted for his bad family history. This fact led Metchnikoff, the Master of Old Age, astray for on page eight of "The Prolongation of Life" he says that as Madame Robineau's relatives had died comparatively early in life her great age was an acquired character. Like all other centenarians she must have come from tender stock, but, having escaped infection, it was by virtue of this tender nature she grew senile slowly. The poor family history of the centenarian indicates that senescence is beneficent, for the average life is longer in families with shorter potential longevity.

A few years ago Doctor Edgar M. Holden read a paper on "The Defeat of Heredity" before the Association of Life Insurance Medical Directors. The figures he presented indicate that the average age at death of the parents of men who die after seventy is less than the average age at death of the parents of men who die before seventy. According to this statement heredity is a delusion in the matter of

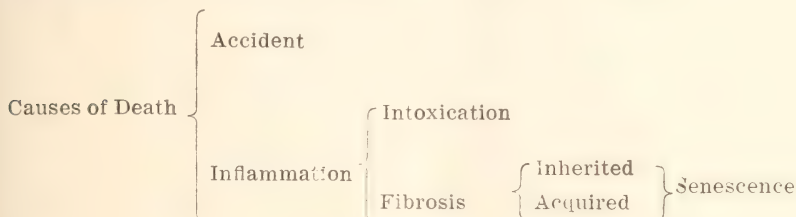
longevity or else senescence is beneficent. Doctor Holden did not admit either, but laid the error at the door of the Law of Average—a law which men of his profession are supposed to revere. But to exceed seventy years one must come from a family of marked longevity. In each family of this character one or more members generally live to old age. According to his figures men dying over seventy have a larger per cent. of parents to reach seventy than have those who die under seventy. Again the findings are as we should expect.

Ancient history tells us that at one time men lived very much longer than they do now. This is the explanation: The body had not yet developed means for resisting bacteria. There either was a heavy childhood mortality or bacteria was scarce. As it is not recorded that the former is true, it is likely the latter condition obtained. But through the dissemination of bacteria by travel each nation became infected with an increasing variety of diseases and there was required a constantly increasing resisting power. This power was senescence, which decreased the absolute potential longevity in order to increase the average. So long as bacteria multiply, as they are now doing, resistance will rise and potential longevity will fall. If we are ever able to decrease the number of microbes in the world nature will immediately begin to decrease resistance and the length of life will gradually increase. Those teachers who would always lessen infection by producing immunity are putting the cart before the horse. If mankind would destroy everything given off by the body most germ diseases would disappear in a few years and senescence would develop more

and more slowly until the years of Methuselah might be exceeded

According to the principle expressed above the process which originated in primordial organisms as protection against untoward environment at last set a limit to life in every species. This process is primary senescence and terminates in the hypothetical natural death. But death as we experi-

ence it is caused by accident or by inflammation. By accident is meant the operation of any external agent except parasites. When death is due to parasites it results either from their own activity or from the fortifications erected against them. Such defences may be inherited or may be due to the personal reaction against infection. A diagram of this classification is appended.



## THE DAWN OF MEDICINE, THE PRE-HIPPOCRATIC PERIOD.\*

BY CHARLES LEWIS ALLEN, M.D., LOS ANGELES, CALIFORNIA.

To trace the history of medicine, is to trace the history of civilization, for as soon as man began to think at all he undoubtedly began to consider the physical ills to which he is subject and to seek means for their alleviation. The researches of the Ethnologists have brought out the remarkable fact that in the primitive races, those living under similar circumstances, and who have reached a corresponding degree of civilization, show remarkable similarity in manners and customs, and in the weapons and utensils of which they make use. In fact stone knives, axes and other implements of the savage tribes first visited by travelers during the last century and a half bear a striking resemblance to those found along with the fossil remains of our European ancestors of thousands of years ago, and many

facts lead us to believe that in their life could be witnessed, almost up to the present day, the primitive mode of existence of our remote forebears. On this account, the study of the ideas with regard to disease, and the methods employed for its cure, among the so-called savage races, are of the greatest interest and value, as throwing light upon the slow and painful stages through which medicine has had to pass to reach the position which it holds today.

That even the lower animals possess instinct with regard to certain medicinal plants, and in some instances practice a rude surgery seems pretty well proven. Who has not noticed our common domestic dog and cat, usually carnivorous, seeking out and devouring certain plants; the dog choosing among other things the so-

\*Read before the Los Angeles County Medical Association April, 1911.



called "dog-wheat" (*triticum caninum*) for him a purgative, while the passionate fondness for valerian and catnip—said to be for her an excitant and intoxicant—of the cat, is well known. The East Indian Mongoose is reputed to have knowledge of a plant which renders him immune to snake venom—though this is very doubtful—while from an excellent observer we have an account of how the snipe rudely sets and splints a broken leg, not to speak of the somewhat apocryphal tales from Pliny of the hippopotamus who bleeds himself by opening a vein on the sharp point of a broken reed upon the river bank, and when enough blood has been lost closes the wound with a dressing of mud, or of the sacred ibis, with his syringe-like bill, the inventor of the enema.

In man the development of medicine and that of religion bear the closest relationship, for even up to the present day, the religious views which have prevailed, have profoundly influenced the practice of medicine. The priest and the physician are drawn together by many bonds, and it has even been affirmed that they are "own brothers."

Brought into contact with the phenomena of life and death, man could not but speculate upon what marked the difference between the living, breathing being, and his inanimate corpse, and the idea of a soul or spirit, often thought of as leaving the body in the last exhalation, appears even in the earliest stages of culture.

The dual nature of man once conceived that the soul could separate itself from the body, temporarily, as well as permanently, involved no great stretch of the imagination, hence sleep and dreams were interpreted as due to the wandering from its habitation of the spirit, which

when it returned, brought back with it the memory of its adventures during its absence. Since man has always been prone to consider the world from an egocentric point of view, it is not remarkable that he peopled all nature, both animate and inanimate, with spirits akin to his own, and attributed to them powers, often malignant, though sometimes beneficent, to be propitiated, or intimidated, as seemed necessary for the good and safety of himself and his family; hence the ideas of demoniacal possession and of witchcraft which even at the present day have not entirely ceased to influence popular opinion. As disease was something which came upon him from whence he knew not, and whose mysterious nature he could not understand, he naturally attributed it to the influence, or to the personal presence, of a malignant spirit who, entering into him, gripped his vitals, tore his flesh, broke his bones, sucked his blood, etc., the intervention of the friendly powers, who could prevent this, being withheld on account of his neglect of some obligation due them, and turned to the priests who enjoyed the favor of the gods, or who knew how to command the respect, excite the fear, or tempt the cupidity of the powers of evil.

Since wounds and injuries were less liable to be misinterpreted, it is not remarkable that with regard to them somewhat more common sense views should prevail, and that thus very early the differentiation between physician and surgeon began. While in the practice of sacerdotal medicine, ceremonies having as their end the exorcism of the demon, or the propitiation of the Deity would naturally be made prominent, the more intelligent of the priests would not scorn to

use in addition, such measures of treatment as had been learned empirically, and we can trace among them the beginnings of medical practice proper. Through accident at first, through observation of animals, and possibly by experiment later, the medicinal properties of plants were by degrees discovered, and a rude surgery was gradually developed, while the necessities of war, and of the chase led to a knowledge of the preparation of poison for weapons. Many of our valued remedies of today have been brought to notice by those who have found them in use by savage tribes, and several of the physical methods of treatment, as the steam bath of the Indian and the massage of the Sandwich Islander, are used to good advantage by people low in the scale of civilization.

With the results of accident and injury, man earliest became acquainted and the first surgical dressing was applied when a wounded finger having been bound around with a green leaf or some wet moss, the soothing effect of cold and protection was made apparent. The pain of the fractured bone was found to be alleviated by support instinctively applied and the substitution for the hand of a piece of a tree branch fastened with green wythes, marked the beginning of the splint. Even with the stone knife some of the simpler cutting operations could be performed. Fossil skulls from the stone age show that trephinations were done, but whether for religious or for therapeutic purposes is not entirely clear. That the subjects thus treated were regarded with veneration by the other members of the tribe is apparent from the fact that after their deaths pieces of bone from the region surrounding the opening were often re-

moved, and apparently worn as amulets. Possibly these patients were epileptics who among many nations have been held in peculiar veneration as favorites of the Deity. The practice of oöphorectomy on the female and the production of artificial hypospadias in the male, for the prevention of conception has been found among the Australian aborigines and other savages, while a successful Caesarian section by a native operator was observed among a tribe of South African Negroes. From pure empiricism, medicine has advanced by slow and painful steps to the stage of studied observation and experiment with recording of results, and since the keeping of records in itself implies a comparatively advanced stage of civilization, we must next turn our attention to those regions in which the earliest known historical records have been found, the Valleys of the Nile and of the Euphrates. The known records of the ancient Egyptians, estimated to go back at least five or six centuries before Christ, show already a civilization quite advanced. Among this wonderful and intensely religious people the idea of the double, and that the interdependence of soul and body was not ended by death, colored each act of their lives, and led to that intense veneration for the body which caused the invention of the most wonderful methods of embalming which have ever been known and which can no longer be imitated. This naturally caused an abhorrence for such measures as might tend to mutilate the sacred structure, but as a compensation, since the processes of embalming as well as the practice of medicine were under the supervision of the priestly caste, opportunities for gaining anatomical knowledge, though

surreptitiously and at some risk, were probably not entirely wanting. Georg Ebers, in one of his novels dealing with ancient Egyptian life, draws a somewhat amusing picture of Veb-secht, the priest-physician who, anxious to make a study of the heart, bribes one of the "paraschites"—(the despised class whose office was to make the necessary incision for the embalming and who as soon as their task was over were driven away with stoning and execration)—to secure for him a human heart. After forcing the priest to give him a paper, promising to bear the sin when they stand before Osiris, the Judge of Souls, the man agrees to substitute the heart of a ram for that of a man at his next opportunity. Having the choice between that of a poor man and that of the High Priest, who have just died, he chooses the latter as he reasons that he has had a so much better time in the present world. Some of the other priests discovering the deception, and the sacred Ram or Ammon being opportunely deceased, rise to the occasion, and proclaim that the god has shown his special favor toward the dead ecclesiastic by the transfer. The sacrilegious pair hence escape exposure. That there were two classes of practitioners among the Egyptians, those confining themselves to measures designed to expel from the body the demon of disease, and the legitimate physicians, who after careful study of the case applied such remedies as their reading and experience suggested, we have good evidence. Maspero in drawing a picture of the illness and death of Psarou, Count of Thebes, represents the family as first sending for a noted exorcist and when under his ministrations the patient did not improve but had sunk into a deadly stupor, Pshadou,

the personal physician to the Pharaoh, is summoned, alas too late. Since everything else was supplied with a patron divinity, the healing art was not left unprovided.

To Thoth, the god of letters, who aided Horus in his conflict with Set, the spirit of darkness, is attributed the authorship of the so-called "Hermetic Books," which were considered to form the basis of the practice of medicine and from whose precepts the physician could deviate only at the risk of forfeiting his own life if the patient died, though if under their application the sick man did not improve by the third or fourth day some latitude seems to have been permissible. These books have been lost though the titles of the six which are strictly medical, out of a total of forty-two, are handed down to us as—

1. On the constitution of the body.
2. On diseases.
3. On instruments.
4. On drugs.
5. On the eye.
6. On diseases of women.

Imhotep, whom the Greeks were inclined to identify with their Esculapius, was honored as the founder of medicine, and it is generally supposed that, like his Greek congener, he was a man who had actually existed and had gained extraordinary fame as a physician. That the physician was often a man of wealth and influence the monuments give abundant testimony. Particularly is this shown on the monument of Nenekhsemet, the personal physician to one of the Pharaohs of the Fifth Dynasty. That the Egyptians possessed much practical knowledge of medicine seems clear, but their physicians being almost entirely of the priestly cast, were bound to follow slavishly the precepts of the past, declared to be of Divine origin, and dissections were of course forbidden. Indications are, however, not



wanting that there were some bold spirits who did not hesitate to leave the beaten path at times.

That they could recognize the chief diseases of their country and had acquired skill in treating them, seems well assured. Particularly do we find references to diseases of the eye and to those of the digestive tract still common in the Land of the Nile. Our knowledge of medical matters among the Egyptians is of comparatively recent acquirement, having been gained from study of the inscriptions on the monuments and from certain papyri which could not be translated until the decipherment of the "Rosetta Stone" found in 1799. Of the strictly medical papyri, one purchased by Georg Ebers during a visit to Thebes in the winter of 1872 is the most important. It was found by a native in an ancient tomb, but as the original finder was dead just what tomb could not be ascertained. It is evidently a copy from some earlier works as it contains some marginal notes by its former owner which so indicate. It is supposed to date from about 1550 B.C. The Medical Practice outlined in it is a curious mixture of incantations and remedies. The former were usually combined with the latter. (Even the preparation of drugs was generally accompanied by certain religious formulae.) As a short example the following was recommended in the treatment of a burn:

LXIX. "Oh Horus, thou Son of God, there is fire in the land. Whether there is water or not, there is water in thy mouth. The Nile is in thy feet if thou come to quench the fire." This to accompany the application of milk and wool to the part. Other examples could be given.

A number of drugs are mentioned, among them various salts of lead as

astringents and demulcents, pomegranate and acanthus pith as vermifuges, copper acetate and sulphate, magnesia, lime, soda, nitre, oxide of antimony, sulphate of mercury, peppermint and other aromatic oils, gentian and other bitters, mandrake, hyoscyamus, opium and other hypnotics and anodynes, flaxseed and castor oils, squill, mustard, tamarind, and aromatic gums. The Egyptians used the knife, the actual cautery, massage, ointments, plasters, poultices, inhalations, suppositories, enemata fumigations and the vaginal douche. Excrementitious substances also entered into their pharmacopoea. They seem to have had a partiality for ointments and cosmetic preparations. The following pomade for baldness is, as Dr. Comrie remarks, "Imposing," and "its ingredients must have been somewhat dangerous to procure."

LXVI. Lion's fat, 1 part; hippopotamus fat, 1 part; crocodile fat, 1 part; goose fat, 1 part; snake fat, 1 part; Nubian ibex fat, 1 part. Mix and rub in.

The following for dacryo-cystitis: Collyrium, 1 part; wood dust, 1 part; dry myrrh, 1 part; honey, 1 part.

Of this formula the author evidently had a high opinion, for he made a note to it, "Mark well, for this is the real thing." While in the list some startling and disgusting remedies appear, it hardly suffers by comparison, for instance, with the Pharmacopoeia, the College of Physicians of London, of 1652, in which such substances as urine, bile and dung are recommended. The Egyptians did not think much of the brain, but regarded the heart as the seat of the soul of the good qualities. Such expressions as "large hearted," etc., very possibly have come down to us from their time. In some of their descriptions of disease,

we can recognize maladies prevalent in their country today, particularly the so-called Egyptian chlorosis, now considered as the anemia secondary to anchylostomiasis, and trachoma. They knew the use of blue stone, and some roller forceps of bronze have been found which are well adapted for the crushing of the granulations. They also had fine bronze knives which seem suitable for surgery, though the incisions for embalming were always made with a stone knife. Their belief in the persistence after death of the relations between soul and body led to the wonderful development of the art of embalming which has preserved to our day, and in such condition that we can form a fair idea of how they looked in life, the bodies of men who have been dead for over three thousand years. There were three grades of embalming, for the rich, for the middle class and for the poor, the first very expensive, the last cheap. Herodotus, who visited Egypt in the fifth century, B.C., says that the country swarmed with physicians and that there was a specialist for almost every organ in the body.

He has left us a description of embalming as it was practiced at that time. The friends of the deceased were first shown samples of the embalmers art and required to choose between the three grades. In the most elaborate process an exact counterpart of that used by Horus to embalm the body of his father, Osiris, the brain was removed by a crooked instrument which was passed up through the nostril, a cut was made in the left side with a stone knife, the abdominal and thoracic viscera were carefully extracted and after being washed with palm wine were soaked in aromatics and placed in what were called canopic jars. The body cavi-

ties were then filled "with bruised myrrh cassia, and every sort of spice except frankincense" and the incision sewed up. The body was next placed in "natron" solution for a period of 70 days after which it was removed, washed and bound around with linen bandages soaked in gums. In the second method, the viscera were not removed but the cavities were injected with cedar oil which when removed later had dissolved and brought away the viscera. The body was then immersed in natron for the usual period. In the cheapest method the body was simply immersed in natron. Probably however the embalmers used some other preservatives the secret of whose composition they did not choose to disclose. The "natron" is supposed to have been either a strong brine or a solution of bicarbonate of sodium which later might readily form with the fatty acids an adipocere and so preserve the form. The body was put in a mummy case made in the shape of a man and having over the head a sort of mask of the picture of the deceased and was eventually placed in a standing position in the tomb, surrounded by the canopic jars containing the viscera. These latter were dedicated to the four children of Horus who presided over the points of the compass, Hapi the North containing the smaller viscera, Tuamat of the East, the heart and lungs, Amset the South the stomach and intestines, and Quebsehnep the West, the liver and gall bladder. The use of amulets as a preventive of disease was very popular, a favorite one being the Utchal or Eye of Horus, later adopted as the sign of Jupiter and coming down to us in slightly modified form as the R which each of us writes before his prescriptions.

Transferring ourselves to the Valley of the Euphrates, we find evidence that while among the ancient civilizations of the Chaldeans, Babylonians and Assyrians, medicine had made some progress and the physician occupied a well recognized position, the healing art upon the whole had not advanced to the same extent which it had among the Egyptians. The Chaldeans were the astronomers of the ancient world, and their knowledge of the heavenly bodies seems to have encouraged among them, a belief in the influence of the stars upon mankind and to have stimulated them to seek the healing principle in this influence under favorable constellations. Hence in their practice magic and charms seem to have played the chief role, though that they had some practical acquaintance with the recognition and treatment of disease is certain. Among the 2000 clay tablets engraved in the cuneiform characters, which formed the library at Ninevah founded by Esar-Haddon (681-668 B.C.) and completed by his son Assur-banipal (668 B.C.-626 B.C.), Oefele estimates that there were from 500 to 1000 on medical subjects. These seem to be in some instances, at least, copies of much earlier works, as upon some of them it is stated that they are "like the ancient tablets of Sumir and Akkad." There was another library and probably a medical school at Borsippa near Babylon. The oldest definite mention of the medical man and his status is found however in the elaborate "Code of Hammurabi," thought to date from about 2000 B.C. In this document which embodies laws regulating in simple and common sense manner the relation of each man to his neighbor and to the state, the rights and responsibilities of the

physician are set forth in the following paragraphs.

215. "If a doctor has treated a gentleman for a severe wound with a bronze lancet and has cured the man, or has opened an abscess of the eye for a gentleman, with the bronze lancet, and has cured the eye of the gentleman, he shall take ten shekels of silver."

216. "If he (the patient) be the son of a poor man, he shall take five shekels of silver."

217. "If he be a gentleman's servant, the master of the servant shall give two shekels of silver to the doctor."

218. "If the doctor has treated a gentleman for a severe wound with a lancet of bronze, and has caused the gentleman to die or has opened an abscess of the eye for a gentleman, with the bronze lancet and has caused the loss of the gentleman's eye, one shall cut off his hands."

219. "If the doctor has treated the severe wound of a slave of a poor man, with a bronze lancet and has caused his death, he shall render slave for slave."

220. "If he has opened his abscess with a bronze lancet and has made him lose his eye, he shall pay money, half his price."

221. "If a doctor has cured the shattered limb of a gentleman or has cured the diseased bowel, the patient shall give five shekels of silver to the doctor."

222. "If it is the son of a poor man he shall give three shekels of silver."

223. "If a gentleman's servant, the master of the slave shall give two shekels of silver to the doctor."

Dr. Combrie thinks that the term "abscess of the eye" refers to cataract and that the severe punishment provided for loss of the eye is meant to prevent the practice of "couching" by



ignorant quacks which is known to have been prevalent in the East and to have entailed disastrous results.

According to Rawlinson, there were three classes of Chaldean doctors. The Khartumim or conjurers, the Chakamim or physicians, and the Asaphim or theosophists. The first were probably the busiest, as the Chaldeans peopled both heaven and earth with spirits. That they had not always complete confidence in their own art is shown by the following petition. "Bilipus the Babylonian magician is very ill; let the King command a Doctor to come and see him."

Of these spirits the most malevolent were the "seven spirits" sexless, born without father or mother, who brought all plague and evil to the world. Aca-dian literature is rich in charms and formulae of exorcism. A practice which is attributed to the Chaldean is that of bringing sick people to the market place on their couches, where all who passed by were supposed to stop and inquire as to the nature of the illness, and in case they had ever experienced the same symptoms to tell by what means they were cured, in order that the information so obtained could be used for the benefit of the patient. That physicians occupied an official position however, there seems no doubt. We find various references to the Rab-Mag or court physician and there is preserved a letter of one Arad-Naman Court physician to Esar-Haddon, in which he reports to the King upon the condition of a man whom he had been sent to visit, and makes some remarks about the health of the Prince. We find allusion to certain easily identified drugs, such as sesame, olive and castor oils, syrup of dates, honey and salt. Fasting, massage and enemata were also in use. Medicine however was evidently not

upon the same plane as among the Egyptians. Herodotus found no physicians in Babylon and Assyria.

Among an Assyrian version of hymns to be used in soliciting protection against the fatal "Seven" we find the following line: "The poisonous consumption which in the mouth malignantly ascends." Possibly the contagiousness of tuberculosis was suspected even then. The winged bulls with human heads, a characteristic feature of Assyrian door-ways seem to have been placed there to scare away the spirits.

About the medicine of the Hebrews before their sojourn in Egypt about 1500 B.C. we know little or nothing. That Moses enjoyed the best educational advantages which that country afforded, and that his education embraced studies in medicine seems more than likely. It is even asserted that he was at one time a priest at Heliopolis. It is certain that the medicine of the Jews after his time shows traces of Egyptian influence. The sublime monotheism of the Hebrews gave less room for ideas of demoniacal possession than the other religions of their time, and their theories as to disease seem more free from superstition than those of any of their neighbors. Throughout the Old Testament we find frequent reference to medical subjects and portions of the Book of Leviticus read like a treatise on hygiene. Particular attention is given to the sources and to the methods of avoiding uncleanness (contagion). The institution of circumcision was doubtless in part a hygienic measure. It would hardly repay us to draw up the long list of diseases which are mentioned in the Bible, among which we easily recognize many with which we are familiar to-day. In the Talmud also, matters

of medicine are discussed, though the greater part of this work dates from a period long after that under discussion. It seems clear that even at this early day, this remarkable people were in no way behind their neighbors in the practice of the healing art, and they may have been even then, laying the foundation for that intellectual eminence in medicine which for centuries has been theirs, and which at the present day is still their possession. That among the Aryan conquerors of India medicine had early made progress is shown by the mention of physicians and the healing power of herbs in the first of their sacred books, The Rig-Veda. In the somewhat later Atharva-Veda, we find an invocation against the fever demon. By the Hindus themselves the origin of medicine has been ascribed to Dhanvantari who has been called the Esculapius of India and to whom Divine honors were paid. He is said to have transmitted his knowledge to Susruta (or Charaka) who embodied it in the Ayur-Veda, the first medical work.

The time of this however is estimated as being about 320 B.C. which does not belong to the Pre-hippocratic period. While colored by the grossest superstition, the medicine of the Indians even early in our era had made great practical advances. That the Persian monarchs appreciated the value of medicine and maintained at their courts physicians, usually Egyptians or Greeks, we are informed. It appears that what medicine they knew was chiefly of foreign origin, and that the Persians at this period at least, contributed little to medical science.

The Chinese attribute a work on medicine to the Emperor Huang-Ti about 2637 B.C. It is said to be still extant. Their practice however seems

to have been always based chiefly on ideas of witchcraft and demonology, with little or no anatomical and physiological knowledge, and then as now, they seem to have set great store in diagnosis by the pulse.

To trace the origin of Greek medicine we must go far back into the region of myth and since as in other nations the sun was looked upon as the giver of all fertility, and as driving away the powers of evil, personified in the darkness, it is only natural that his divine representative, Phoebus Apollo (or Paean) should be regarded as occupying himself with the healing art and that supplications for cure should be addressed to him.

That an earthly follower, whose skill surpassed that of all others of his time, should first figuratively be addressed as the son of Apollo, and should later come to be considered so in fact is not remarkable, and in this way we can probably trace the rise of Asklepios—or Esculapius—to a place in Olympus where he was worshipped as the God of Medicine. The reputed son of Apollo and the nymph Coronis, the mother falling an early victim to the jealous rage of the god, he was at a tender age given over to the care of the wise old Centaur Cheiron, who taught him many things, among others, the properties of every plant. The pupil showed extraordinary proficiency and leaving his kind instructor applied his knowledge to the treatment of disease, in which he attained the greatest success. He is said to have been one of the Argonauts in the expedition to Colchis after the Golden Fleece and to have effected some wonderful cures among the members of the company.

Returning to Greece his success became so great and he saved so many

lives, that Pluto complained to Jupiter that on account of Esculapius, he was no longer receiving his proper number of subjects in his kingdom of the lower world, demanding that something be done. Jupiter finally consented to destroy the bold physician by a thunderbolt, but upon the supplication of his father, Apollo, transported him to Olympus and placed him among the ranks of the gods. Whoever he may have been, his cult became established and for centuries occupied among the Greeks a most important place. It is said that there were throughout the Greek possessions 320 temples dedicated to him, the most famed one being at Epidaurus in Thessaly.

That he left a number of descendants seems certain and it is not remarkable that some of them should follow in his footsteps, and should in time together with their students form the class of Asklepiadae in whose hands the service of his temples and the practice of healing were placed.

Among his children are mentioned the daughters, Hygeia Jaso, Panacea, and two sons Machaon and Podalirius. These latter were medical officers of the Greek forces which took part in the Trojan war, their names being mentioned in the *Iliad* of Homer. To Machaon belonged the duty of treating wounds and injuries, while Podalirius had received from his father the gift of "recognizing what was not visible to the eye and tending what could not be healed." An early differentiation between surgeon and internist. The latter is said to have been the ancestor of the great Hippocrates.

That the practice of medicine remained the exclusive property of the Asklepiadae is denied, and it is even asserted that they were not physicians

but priests whose practice was thau-maturgic alone, or chiefly. However this may be, it is certain that until after the time of Hippocrates the cure at the temple of Esculapius occupied the chief place in the minds of those Greeks who fell ill. These temples were always situated amid surroundings of great natural beauty and salubrity, where nature and art combined to exert a most powerful suggestive effect, usually in beautiful groves near the mountains. Before approaching the shrine of the god the patient had to undergo a purification by ablutions, fasting, and prayer. Most likely at this time the priests who could hardly have been devoid of some medical knowledge found means to introduce some simple remedies when needed. The preliminaries over, the invalid after making a suitable offering was required to sleep in the temple before the statue of the god, who in person or in a dream, would indicate to him the measures necessary to effect a cure. About these temples were kept a number of large but harmless serpents, which abound in that region and are held sacred to the god; also dogs who were trained to lick the wounds of those presenting themselves by way of encouraging a cure). In his statues Esculapius is represented as a man with long beard holding in one hand a staff, the other resting upon the head of a serpent, while a dog crouches at his feet. The cock, the symbol of vigilance, was also held sacred to him. In the middle of the night Esculapius would appear in his usual habit, accompanied by his two daughters Jaso and Panacea and would go the rounds of the patients prescribing for each of them. Doubtless he could be just as well represented by a proxy. Occasionally he took the form of a serpent. If a cure failed to re-



sult, the patient was nearly always persuaded that the fault was his, he having failed in some of the required observances or his offering being too small, and was encouraged to try again. A cure effected, it was the custom to hang up in the temple a votive tablet stating what had ailed the patient and how he had been cured. The temple at Epidaurus is said to have been full of such tablets. It is very evident that here the most powerful suggestive influences came into play and as the priests doubtless were able to exercise some selection in the cases admitted, it is not remarkable that cures there were. Great care was taken that no one should die within the sacred precincts as that would have been a profanation, and no woman was allowed to be delivered of a child there.

Besides the thaumaturgic influences, simple dietetic and hygienic measures were probably carried out, and at certain times, at any rate, distraction and amusement was furnished by the game in honor of the god. Were not these the original "Kurorte?"

Later, after the faith of the Greeks had grown cold we find many satirical allusions to the temple cure, but the cult endured for a long time both in Greece and in Italy.

That there were physicians outside of the ranks of the Asklepiadae there is no doubt. The Greeks regard as one of their earliest practitioners Melampus whose learning was reputed to be remarkable. To Iphiclus who had come to him complaining of inability to beget children, he recommended to put a dagger in water and after it had grown rusty to drink the resulting fluid, an early example of iron therapy. The daughters of Melampus, King of Argos, having developed a malady which caused them to

imagine that they had become cows, and to go lowing about the fields, and a number of young women of the neighborhood having followed their example—evidently an early epidemic of hysteria—Melampus cured them all by dosing them with hellebore. There are several allusions to medicinal plants in the Iliad, and in the Odyssey we find the following which would seem to indicate that the disinfectant power of sulphur dioxide was known even then.

"Bring sulphur straight and fire (the monarch cries);

She hears and at the word obedient flies.

With fire and sulphur cure of noxious fumes

He purged the walls and blood-polluted rooms."

Along with the development of medicine proper in Greece, there were established medical schools, the most important of which were those of Rhodes, of Cnidos and of Cos, the last celebrated as the alma mater of Hippocrates.

Greek civilization at its period of highest development produced nothing more remarkable than its Philosophers, the boldness of whose speculative opinions, around us even at this day. These men do not seem to have been practical physicians but since nothing was foreign to their comprehensive minds, medical science received a portion of their attention. Their influence upon it was far reaching. The Ionic philosophers seem to approach most nearly in their methods of thought to modern scientists. At their head stands Thales of Miletus who is said to have been able to predict an eclipse. Anaximander believed in a gradual development of man from lower forms of life that he

once had the shape of a fish, later that of a land animal. The Ionic philosophers believed that water was the basis of everything and spoke of the four elements, warm, cold, dry and moist. They seem to have been the first to make exact observations and possessed considerable knowledge of the things of nature.

Leukippus and Democritus first suggested the theory of atoms and accounted for changes of state by rearrangement of the atoms. The atomistic school. Pythagoras who seems to have possessed a mind of commanding breadth, and who by travel in many lands had amassed a wealth of knowledge from Egyptian, Persian and Indian sources, seems however to have exerted the most profound influence upon medicine of any of the philosophers.

He was born during the early part of the Sixth century B. C., in the Island of Samos but in his later life emigrated to Crotona in Italy. His activities are said to have embraced practically the whole field of human knowledge, though his partiality seems to have been for mathematics as he had an extraordinary reverence for numbers. According to Aristotle his doctrine was that, "number is the principle of all things, and that the organization of the universe is an harmonic system of numerical ratios." He is said to have held that the sun is the center of the cosmos, anticipating Copernicus, and to have discovered the mathematical relations between musical tones. He first taught the immortality of the soul, and believed in metempsychosis. For him health was harmony, disease disharmony. He has left no writings, so for information concerning him we are dependent upon the writers of a later school, who in many instances have

probably confounded the work of the master with that of his disciples. That he founded a society or brotherhood whose principles were those of temperate living, simplicity in dress and manner, purity of conduct and self discipline by constant introspection, there is less doubt. The antagonism which his attempts at regeneration of society aroused, was ultimately the cause of his migration to Italy. One of the duties inculcated upon the members of his society seems to have been to care for the sick and its members often to have been the first to visit patients at their homes.

Under the auspices of the Pythagoreans there was built up at Crotona a school of medicine which produced some celebrated physicians. The greatest advantage to medicine of Greek philosophy was, however, not the introduction of a number of speculative theories, but that, at least among some of the philosophers, the habit of closely observing natural phenomena was acquired. It remained, however, for Hippocrates, who had had a philosophical training—and always showed the effects of it—to depart from the idea that through speculation alone a knowledge of things could be gained, and to show that medicine must be learned at the bedside through the study of the phenomena of disease. If we can believe the statement that Xonophanes from finding the fossils of marine animals upon the mountains formed the opinion that the land had once been under water, we have an excellent example of close observation followed by intelligent deduction. But while the Greeks may have been able to observe closely and to reason sharply, what separates their science from that of modern times, is the almost total absence of experiment. Rarely do they seem to have put the

question to nature under intentionally produced artificial conditions. To whatever this may have been due, the fact remains that the experimental method is the peculiar attribute of modern science and marks its immeasurable superiority over that of the Greeks. With them as with all the people of their time, popular prejudice prevented human dissection, and while some of the philosophers are said to have dissected animals, whatever they may have learned by this does not seem to have been applied to the medicine of their day.

Pacific Electric Bldg.

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### ON CLEANLINESS.

Cleanliness may be recommended under the three following heads: as it is a mark of politeness; as it produces love; and as it bears analogy to purity of mind.

First, it is a mark of politeness; for it is universally agreed upon, that no one undorned with this virtue can go into company without giving a manifest offense. The different nations of the world are as much distinguished by their cleanliness as by their arts and sciences. The more they are advanced in civilization the more they consult this part of politeness.

Secondly, cleanliness may be said to be the foster-mother of love. Beauty commonly produces love, but cleanliness preserves it. Age itself is not unamiable while it is preserved clean and unsullied; like a piece of metal constantly kept smooth and bright, we look on it with more pleasure than on a new vessel that is cankered with rust.

I might further observe, that as cleanliness renders us agreeable to others it makes us easy to ourselves; that it is an excellent preservative of health; and that several vices, de-

structive both of mind and body, are inconsistent with the habit of it.

In the third place, it bears a great analogy with purity of mind, and naturally inspires refined sentiments and passions. We find from experience that, through the prevalence of custom, the most vicious actions lose their horror by being made familiar to us; on the contrary, those who live in the neighborhood of good examples fly from the first appearance of what is shocking, and thus pure and unsullied thoughts are naturally suggested to the mind by those objects that perpetually encompass us, when they are beautiful and elegant of their kind.

In the East, where the warmth of the climate makes cleanliness more immediately necessary than in colder countries, it is a part of the religion; the Jewish law (as well as the Mahometan, which in some things copies after it) is filled with bathing, purifications and other rites of the like nature; and we read several injunctions of this kind in the book of Deuteronomy.

ADDISON.

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Professor Paul Ehrlich was born on March 14, 1854, at Strehlen, Prussian Silesia, and studied medicine at Breslau, Freiburg, Strassburg, and Leipzig, from which later University he was graduated in 1878. He then became assistant at the university clinics in Berlin. In 1888 he was recognized as a Privatdozent, became, in 1890, assistant to Koch at the Institution for Infectious Diseases, and a year later, in 1891, was appointed assistant professor. In 1896 he became director of the Laboratory for Serum Examination connected with this institution. When in 1899, the Institute for Experimental Therapeutics was opened at Frankfort on the Main, Ehrlich became its director. In 1908 he received the Nobel prize.



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This journal endeavors to mirror the progress of the profession of California and Arizona.

Established in 1886 by  
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Address all communications and manuscripts to  
EDITOR SOUTHERN CALIFORNIA PRACTITIONER,  
Subscription Price, per annum, \$1.00. 1414 South Hope St., Los Angeles, California.

## EDITORIAL

### THE A. M. A. IN LOS ANGELES.

To the Medical Profession:

It is difficult for a physician who has lived and practiced in Los Angeles for thirty-six years to adopt the viewpoint of one who has never been here, and tell him of the things that would most interest him.

Los Angeles is situated in a valley, with the Sierra Madre Mountains in view just a few miles to the east, and the Pacific Ocean twelve and fifteen miles to the west.

In this valley are, besides Los Angeles, Pasadena, Pomona, Whittier, Ontario, Upland, Alhambra and several other flourishing towns, and the sea-side cities of Long Beach, Redondo, Venice, Ocean Park and Santa Monica. Between these towns are orange groves, walnut groves and vineyards. Electric cars, with ten and fifteen-minute service, connect all these

places, and, in fact, you can get on an electric car in front of your hotel in Los Angeles and be at the ocean in twenty minutes, or be on top of a mountain in an hour.

The physicians, and the citizens generally of Los Angeles, feel that a great honor is being conferred upon us in giving Los Angeles the privilege of entertaining the American Medical Association.

From what I can learn of previous meetings, preparations for generous hospitality to all have never surpassed the arrangements for this California session.

Monday, June 26th, will be devoted to getting guests suitably located, and there will also be sessions of the Arizona Medical Society, of the American Academy of Medicine, American Proctological Society and of the American Medical Editors' Association.

Several of these societies will have their own banquets on Monday evening, but the chief banquet will be that of the American Medical Editors Association, which will be given at the Hotel Alexandria, and will be a very beautiful and elaborate affair.

Every physician will receive, as usual, on arrival a book giving the program and all the events, both scientific and social, and also containing the coupons for every social function. Of course, the physicians of Los Angeles have nothing to do with the arrangements of the scientific program, but we are devoting ourselves entirely to arranging for the social functions, and for the various excursions.

There is an Executive Committee of ladies, and a committee of one hundred ladies for information and general hospitality. The address of each one of these ladies will be in the telephone directory, which will be in every room in every hotel. These ladies will be ready to answer the call of the wife or daughter of any physician who may be visiting here, and it will be their pleasure to do everything to make this visit a pleasure.

On Tuesday afternoon a tea will be given at the Alexandria. Seventy-five of our local ladies will be hostesses. This will be an opportunity for our wives and daughters here to get acquainted with those from the East.

On Wednesday morning there will be an automobile trip for the ladies, with light refreshments at the Los

Angeles Country Club, which is in charge of another committee of ladies. In the afternoon there will be a garden party on the beautiful grounds of Dr. and Mrs. W. Jarvis Barlow. This will be from 4 to 7, and it is expected that not only the wives and daughters, but all of the visiting physicians will avail themselves of the hospitality of this delightful home.

Dr. Barlow is dean of the Los Angeles College of Medicine of the University of California, and president of the Los Angeles County Medical Association.

On Wednesday night the President's Reception will be given at the Shrine Auditorium. This will be in all respects a brilliant affair, and will be followed by a ball that will last from 10 to 12.

Thursday morning the visiting ladies will be given a rest, or if they desire, Los Angeles ladies will take them in small groups to seaside resorts.

Thursday afternoon, from 4 to 6:30, Dr. and Mrs. Norman Bridge will give an Al Fresco Musical in the Tropical Gardens of their home in Chester Place. It is expected that the physicians, as well as their wives and daughters, will attend.

Dr. Norman Bridge has a national reputation, and it will be a delight to himself and Mrs. Bridge to make their guests happy.

On Thursday evening, from 8:30 to 12, there will be an informal smoker and vaudeville performance. While it is intended to especially please

the gentlemen, yet, if the ladies will pardon the smoke, they will all be made welcome, and they will find the occasion enjoyable.

It is thought that the scientific program will close on Thursday.

11 a.m. Friday, the 30th, automobiles will be furnished for all guests, both ladies and gentlemen, for a drive to and through Pasadena, and at noon they will be ushered into the magnificent Sunken Gardens, consisting of 80 acres surrounding the winter home of Adolphus Busch. Here will be given, to the accompaniment of the best music that California can furnish, a Festin del Jardin (Spanish Luncheon). Mr. Busch has given orders to spare no expense. Beeves and sheep will be barbecued on the ground and the leading Spanish dishes will be served Q. S. This will all be served by waiters in Spanish costume. After the luncheon lemonade and cigars will be served to the little groups that will be glad to remain listening to the music in this fairyland. Troubadours in Spanish costume will go from group to group singing to the music of guitars and mandolins.

Mr. Busch has also left orders that a number of acres of oranges and grape fruit be protected until this occasion and every guest will be privileged after the luncheon to pluck an orange for himself.

It is thought that five thousand will be served on this occasion, but if there are more they will not be neglected.

At 3 o'clock the scene will be trans-

ferred to the Tournament Arena, where for an hour there will be Roman chariot races that will provide a few thrills, even for doctors who may think they have gotten past the thrilling period. On January 1st of each year, at Pasadena's Tournament of Roses, 100,000 gather to see these races. The guests will then be brought in the automobiles to their hotels in Los Angeles.

After dinner special cars will be provided taking them to entertainments especially prepared for them at the beach cities of Venice, Ocean Park and Santa Monica, and they will be allowed to return home by midnight.

Saturday they will be taken twenty-five miles out at sea to Catalina Island, where a typical fish barbecue will be served, or to the City of Long Beach, where luncheon will be provided at the Hotel Virginia.

Besides these formal functions, there will be many other entertainments and excursions. San Diego, Riverside, Redlands and Santa Barbara are all clamoring for you.

A retired doctor at Upland, a beautiful foothill town thirty miles from Los Angeles, who has a large orange grove, writes to the Committee that he is going to keep ten acres of that grove especially for the visiting doctors and he wants to give them the fruit on that whole ten acres. He desires you all to come out and be his guests for the day.

There are numerous other generous invitations coming to the Committee of Arrangements, all breathing the



spirit, of hospitality. Those who come to this meeting of the A. M. A. will get a more comprehensive idea of Southern California in five days than the man who comes alone can get in five weeks.

#### VASECTOMY AND EUGENICS.

There are never lacking supporters of reform movements whose enthusiasm carries them even beyond that of Artemus Ward, who professed willingness to sacrifice all of his wife's relatives in the war, and those are in this class who expect wonderful eugenic results to follow vasectomy upon idiots, the feeble-minded, the incurable insane and habitual criminals; and it will be only a short step in advance to extend the sterilization to girls and women in the same classes.

There are no inalienable rights, not even that of life itself, and governments have in all ages asserted the right to self-preservation. There are good reasons why organized society should insist, under wise safeguards, upon the compulsory sterilization of idiots and feeble-minded persons, and there are equally good reasons why sterilization should not be compulsory among the insane and habitual criminals.

The only evil results which follow sterilization in human beings are physical and moral. Vasectomy has been performed upon several hundred individuals in the State of Indiana. Observations there indicate that the operation is not followed by any bad effects physically upon the growth or

development of the individuals subjected to it, and the care of such wards of the State is immensely simplified by it. It very greatly diminishes the practice of masturbation and renders procreation impossible in those subjected to it.

The argument in favor of vasectomy in males applies with equal or greater force to sterilization of the females in the classes considered and for reasons which do not need enumeration.

A recent writer has asserted that the practice of voluntary sterilization is a horrible crime and so revolting that it should be penalized by statute, but Dr. H. C. Sharp of Indiana, who has performed the operation many times, believes the results salutary in every way. In habitual criminals and in the incurable insane sterilization protects them from themselves as nothing else can, and it is difficult to see how it can have any bad results in those classes.

But compulsory sterilization in these same classes is objectionable upon at least two grounds. It violates a moral prejudice which is well-nigh universal in the human race, and from a purely eugenic standpoint it is not necessary and it practically accomplishes very little. For reasons other than those under consideration here such care of the hopelessly insane and of habitual criminals is necessary, that they cannot be a very great menace to the race through their progeny.

The results which have followed compulsory sterilization of idiots and the feeble-minded, and of voluntary

vasectomy in habitual criminals in Indiana have been so favorable that it is not improbable that the practice will extend to the other States of the Union.

E. W.

### CHRISTIAN SCIENCE.

No. 3

The Southern California Practitioner endeavors to always be in a receptive mood. We have published articles in favor of Christian Science in order that ourselves and our readers may thoroughly know that side of the proposition. The following quotations are collated by and the commentary is by Dr. J. M. Buckley, editor of The Christian Advocate (N. Y.). These quotations from Mrs. Eddy's own writings the medical profession should read carefully. They show the extent to which the members of that cult go.

#### MRS. EDDY'S TREATMENT FOR "NOTHINGNESS" AND "MOR- TAL BELIEF," COMMONLY CALLED SICKNESS.

First, after the manner of medical quacks, Mrs. Eddy announces her powers and gives illustrations of them:

[p. 16.] By Mind alone I have prevented disease, preserved and restored health, healed chronic as well as acute ailments in their severest forms, elongated shortened limbs, relaxed rigid muscles, restored decaying bones to healthy conditions, brought back the lost substance of the lungs and caused them to resume their proper functions.

For self-protection she writes as follows:

[p. 328.] Until the advancing age admits the efficacy and supremacy of Mind, it is better to leave the adjustment of broken bones and dislocations to the fingers of a surgeon, while

you confine yourself chiefly to mental reconstruction, and the prevention of inflammation or protracted confinement.

What has the "advancing age" to do with her theory if she can do the thing? Could the "age" prevent it? If so, why not prevent the works she proposes to perform—the healing of the otherwise incurable diseases which she says she has dissipated.

However, she goes immediately back with one of her specially deceptive paragraphs:

[p. 328.] Christian Science is always the most skillful surgeon, but surgery is the branch of its healing that will be last demonstrated. However, it is but just to say that I have already in my possession well-authenticated records of the cure, by mental surgery alone, of dislocated hip-joints and spinal vertebrae.

Any quack could protect himself by that method of speech.

Here is one of the kind:

[p. 194.] I have discerned disease in the human mind, and recognized the patient's fear of it, many weeks before the so-called disease made its appearance in the body. Disease being a belief—a latent creation of mind, before it appears as matter—I am never mistaken in my scientific diagnosis of disease.

We do not wish here to seem to imply that Mrs. Eddy had no regard for the truth. We explain it in another way. She knew little or nothing of the human system scientifically—and her complacency could easily lead her to conclude that SHE was never mistaken:

[p. 197.] Scientists can heal the sick who are absent from them, since space is no obstacle to Mind. My students heal many whom they never saw.

Here is a case of which she makes much:

[p. 199.] The following is a case of heart-disease, which I cured without having seen the patient:

"Please find inclosed a check for five hundred dollars, in reward for your services, that can never be repaid.

The day you received my husband's letter I became conscious, for the first time in forty-eight hours. My servant brought my wrapper, and I arose from bed and sat up. The attack of heart-disease lasted two days, and we all think I could not have survived, but for the wonderful help received from you. The enlargement of my left side is all gone, and the doctors pronounce me rid of heart-disease. I had been afflicted with it from infancy. It became organic enlargement of the heart and dropsy of the chest. I was only waiting, and almost longing, to die, but you have healed me. How wonderful to think of it, when you and I have never seen each other. We return to Europe next week. I feel perfectly well.

"LOUISA M. ARMSTRONG."

Who that understands the construction of the human system can believe that the woman in the case described her condition from infancy? Who questioned the doctors? No one. Who knew it to be organic enlargement, especially if she had dropsy of the chest?

After publishing this Mrs. Eddy observes: "I never believed in taking certificates or presenting testimonials of cures; and usually, when healing, have said to the individual, 'Go, tell no man.'"

Many witnesses could rise up and say that she talked about her cases wherever she went, in season and out of season. Further, she established the "Christian Science Sentinel," which has for many years published testimonials to the number of many hundreds, many of them childish and inconsistent.

Another testimonial says that a man in Cincinnati wrote to Mrs. Eddy as follows:

[p. 199.] A stick of timber fell from a building on my foot, crushing the bones. Cannot you help me? I am sitting in great pain, with my foot in a bath.

Mrs. Eddy publishes a letter from him:

[p. 199.] My painful and swelled foot was restored at once on your receipt of my letter, and that very day I put on my boot and walked several miles.

#### NOTHING TO BE DONE EXCEPT THINKING AND TALKING.

Here is the proof of this:

[p. 336.] The physical affirmation of disease should always be met with the mental negation. Whatever the mind desires to produce on the body it should express mentally, and hold fast to this ideal.

[p. 336.] I never knew a patient who did not recover when the fear of the disease was gone.

#### CHRISTIAN SCIENCE TREATMENT ACCORDING TO MRS. EDDY.

This is the method:

1. Argue the patient's case silently at first.

2. Afterwards, if you can fix Truth stronger in their thoughts, and your patients are prepared for it, explain the metaphysical facts of disease. \* \* \*

Say there is no disease, it is only "belief."

3. If the case is that of a young child or an infant, argue it mainly with the parents, silently and audibly on the strictest rules of Christian Science.

(These rules will be explained later.)

4. Argue there is no disease; it is but the evidence and object of the senses that you have to destroy, not a reality, but a belief that has all the appearance of reality.

5. As you argue the case mentally, hold in mind only the perfect model; never think of the disease or of matter as real or tangible. \* \* \* Say to the patient mentally, "you are not sick," and hold your ground with the skill of a lawyer. Argue down the witnesses, \* \* \* and the disease will disappear. Rely not in the least on the evidences of the senses, but evidences in metaphysical science of man's harmony and immortality.<sup>1</sup>

Here is something, a part of which every reasonable being will accept:

[p. 187.] Avoid talking disease to the sick; make no unnecessary inqui-



ries relative to their symptoms or supposed diseases; never startle them with a remark discouraging about their recovery; never draw their attention to their symptoms as unfavorable, or give them names for their diseases; never tell them beforehand what you have to contend with in their case, or fix in their thought the expectation that they must be worse before they are better. (Science of Man.)

Most physicians would agree with this, with the exception that if the disease is insignificant, not dangerous, to inform the patient of that fact would be reasonable. The following paragraphs are from the Science of Man:

[p. 188.] 6. A cross or complaining nurse should never take charge of the sick.

If the case to be treated is consumption, begin your argument by taking up the leading points that this disease includes, according to belief, showing it is not inherited, that inflammation, tubercles, hemorrhage and decomposition are but thoughts, \* \* \* and should be treated as error, put out of mind, and then they will disappear from the body.

[p. 190.] Commence your treatment always by allaying fear. Argue mentally to the patient, You have no disease, you are not in danger, you have nothing to fear, and are perfectly well; then watch the result of that simple science, and you will find it soothes the symptoms of every disease; and if you never added an argument, but succeeded in destroying his fear without it, you would heal your patient.

[p. 192.] 7. If ever it becomes necessary to startle the mind to remove its fears, afterward make known your motive, showing the patient it was to facilitate his recovery.

[p. 193.] If a relapse takes place, other minds are affecting your patient's, perhaps, or you may not be bringing out in your life the divine Principle of metaphysics in abiding by its rules.<sup>1</sup>

The only change made in this is by the addition as follows, from Science and Health, edition of 1911:

[p. 411.] You may call the disease by name when you mentally deny it;

but by naming it audibly, you are liable under some circumstances to impress it upon the thought.

[p. 420.] If it becomes necessary to startle mortal mind to break its dream of suffering, vehemently tell your patient that he must awake. \* \* \* Tell him that he suffers only as the insane suffer, from false beliefs. \* \* \* Should you thus startle mortal mind in order to remove its beliefs, afterward make known to the patient your motive for this shock, showing him that it was to facilitate recovery.

This should be read carefully:

[p. 422.] If the reader of this book observes a great stir throughout his system, and certain moral and physical symptoms seem aggravated, these indications are favorable. Continue to read, and the book will become the physician, allaying the tremor which Truth often brings to error when destroying it.

<sup>1</sup> Except when otherwise noted the quotations are from Science and Health, with Key to the Scriptures, by Mary Baker G. Eddy. 24th edition, revised. Boston, 1886.

<sup>1</sup>-From The Science of Man, by Mary B. G. Eddy. Boston. 1883.

#### CALIFORNIA STATE MEDICAL SOCIETY.

The State Medical Society held its annual session at Santa Barbara April 18th, 19th and 20th. Mayor Clio L. Lloyd of Santa Barbara delivered the address of welcome, in the course of which he said that the medical profession had done more for humanity than any other profession, and had produced more real heroes than all the wars of the world. Dr. John C. King of Banning, Riverside county, presided with dignity and ability. The following officers were elected: President, Dr. Thomas W. Huntington of San Francisco; 1st Vice-President, Dr. C. S. Stoddard of Santa Barbara; 2nd Vice-President, Dr. J. R. Walker of Fresno; Secretary, Dr. Philip Mills Jones of San Francisco.

The five Councilors, elected for five years, were as follows: E. N. Ewer of Oakland, A. E. Osborne of Santa Clara, John H. Kuser of Novato, John C. Spencer of San Francisco and F. R. Burnham of San Diego.

Ten members of the State Board of Medical Examiners were chosen as follows: Drs. S. H. Buteau of Oakland, W. P. Burke of Redlands, H. P. Newman of San Diego, Albert Soiland and Andrew Stewart Lobingier of Los Angeles, Reynolds of Palo Alto, Quinlan and Hall of San Francisco, G. F. Reinhardt of Berkeley and W. W. Roblee of Riverside.

Two members for the Committee on Scientific Program elected were: Dudley Fulton of Los Angeles and Harry Alderson of San Francisco.

The Board of Public Health was elected as follows: Drs. Black, Eaton, Wilbur, Powers and Foster.

Del Monte was selected for the scene of the next annual convention of the Association.

The election of Dr. Thomas W. Huntington as president was unanimous, and was a satisfaction to all, especially the medical profession of Southern California, by whom he is universally beloved. Dr. Huntington is 62 years old and in the prime of his professional life. He is a graduate of Harvard, and after receiving his degree of A.B. was principal of the High School in St. Albans, Vermont, thus beginning life as a teacher; the course that has been pursued by so many members of our profession.

The California Association of Medical Milk Commissions held their

third annual session in Santa Barbara also, and the following were elected officers: Dr. Thomas McCleave of Alameda, President; Dr. F. C. E. Mattison of Los Angeles, First Vice-President; Dr. T. A. Stoddard of Santa Barbara, Second Vice-President; Dr. Adelaide Brown of San Francisco, Secretary.

In the beginning Dr. McCleave and M. E. Jaffa, professor of agricultural chemistry at Berkeley, were made temporary chairman and secretary respectively.

Dr. C. R. Baker of San Francisco and Dr. George H. Kress of Los Angeles, appointed to draft a Constitution, performed their work.

Each county is entitled to have a Milk Commission appointed by the County Medical Society.

The Public Health League also held its annual session at Santa Barbara at the same time, and listened to an interesting program. The following officers were elected: A. Bonneheim of Sacramento, President; Dr. W. F. Snow, Secretary; Executive Committee, Southern California Division: Dr. Gayle G. Moseley, Redlands; Dr. George E. Tucker, Riverside; Dr. L. M. Powers, Los Angeles. Central Division: Dr. R. G. Brodrick, San Francisco; Dr. John N. Force, Berkeley; Dr. McCleave, Berkeley. Northern District: Dr. R. P. Peers, Colfax; Dr. E. H. Pitts, Sacramento, and Dr. Joseph W. James, Sacramento.

The only unpleasant note of the State Society was the sudden illness of Dr. C. C. Browning of Los Angeles. Dr. Browning was stricken with acute

appendicitis and was hurried to Los Angeles, where he underwent a successful operation, and has at this date practically recovered.

#### THE ARIZONA MEDICAL ASSOCIATION.

The Twentieth Annual session of the Arizona Medical Association will be held in the parlors of the Hotel Van Nuys, Los Angeles, June 26, 1911.

Only business meetings will be held at this session, and on Monday evening this Association will adjourn to allow its members to attend the several sections of the American Medical Association on the four following days.

There will be no annual banquet this year as abundant entertainment will be provided for all members of the American Medical Association and their wives by the Los Angeles County Medical Society.

Members are entitled to the special rates provided for the American Medical Association meeting.

Special arrangements have been made with the Hotel Van Nuys to care for members of this Association, and it is very desirable that all members should take rooms at this hotel so that it will be indeed the Arizona headquarters during the meeting of this and of the American Medical Association. Members should reserve their rooms at once, by writing direct to the hotel management, and stating that they are members of this Association.

The second annual meeting of the Arizona Association for the Study and Prevention of Tuberculosis will be held at this hotel some time during Association week. The exact date will be announced later.

This is a rare opportunity for the physicians of Arizona to attend both the Arizona Medical Association and the American Medical Association at the same time; and the officers of this Association sincerely hope that every physician in the Territory will make a strong effort to attend.

The following is the program for the Twentieth Annual session of the Arizona Medical Association to be held in Los Angeles June 26, 1911:

Los Angeles, Monday morning, June 26.

10:30 a.m.—Registration at Secretary's desk.

11:00 a.m.—General meeting with House of Delegates.

- (a) Reading of Minutes.
- (b) President's Address.
- (c) Secretary's Report.
- (d) Treasurer's Report.
- (e) Appointing of Committees.
- (f) Discussion of the following questions:

(1) Advisability of electing delegates to A. M. A. only every second year.

(2) Advisability of changing plan of organization so that every member of a county society shall be ipso facto a member of the American Medical Association.

(3) Shall the members of the Arizona Medical Association adopt some plan of medical defense?



Monday afternoon, June 26, 2:30 p.m.

- (a) Report of Delegate to A. M. A.
- (b) Reports of Councillors.
- (c) Reports of Standing Committees.
- (d) Reports of Special Committees.
- (e) Discussion of the following questions:

- (1) Uniform regulation of membership in County and State Associations.
- (2) Advisability of this Association publishing a Medical Journal.
- (3) Advisability of changing Article 9, Section 3, of the Constitution so as to provide for the election of officers by ballot of all members of the Association, these ballots to be mailed to the Secretary before the annual meeting.

- (4) Advisability of changing Chapter 4, Section 2, of the By-Laws to provide for larger representation from County Societies in the House of Delegates.

- (f) Election of officers.
  - (g) Appointing of standing committees for 1911-1912.
  - (h) Miscellaneous business.
- 6:30 p.m., meeting of Council.

#### THE PASADENA CHARIOT RACES FOR THE A. M. A.

Although the figs and grapes and oranges of Southern California will bring to mind the history of Palestine and the countries bordering on the Mediterranean yet nothing our visiting brethern will see in California will carry them back more vividly to the history of the ancients than the

chariot races in Pasadena on June 30th.

The following, written in Athens by the Greek dramatist, Sophocles, about 400 years B. C. and translated by Lord Byron, is a graphic description of a Grecian chariot race:

#### THE CHARIOT RACE.

They took their stand where the appointed judges  
Had cast their lots and ranged the rival cars,  
Rang out the brazen trump! Away they bound,  
Cheer the hot steeds, and shake the slackened reins;  
As with a body the large space is filled  
With the huge clangor of the battling cars.  
High whirl aloft the dust-clouds: blent together,  
Each presses each, and the lash rings: and loud  
Snort the wild steeds, and from their fiery breath  
Along their manes and down the circling wheels scatter the foam . . .  
. . . Then order changed to ruin;  
Car crashed on car; the wide Circaean plain  
Was sea-like strewn with wrecks.  
The Athenian saw,  
Slackened his speed, and wheeling 'round the marge,  
Left the wild tumult of that tossing storm.  
Behind, Orestes, hitherto the last,  
Had yet kept back his courses for the close.  
Now one sole rival left, on, on he flew,  
And the sharp sound of the impelling scourge  
Rang in the keen ears of the flying steeds.  
He hears, he reaches; they are side by side;

Now one—the other—by a length the victor.  
 The courses all are past—the wheels erect—  
 All safe; when, as the hurrying courses round  
 The fatal pillar dashed, the wretched boy  
 Slackened the left rein; on the column's edge  
 Crashed the frail axle; headlong from the car,  
 Caught, and all meshed within the reins he fell;  
 And masterless the mad steeds raged along.  
 Loud from that mighty multitude arose  
 A shriek—a shout! But yesterday such deeds,  
 Today such doom! Now whirled upon the earth,  
 Now his limbs dashed aloft, they dragged him—those  
 Wild horses—till all gory from the wheels  
 Released: and no man, not his nearest friend,  
 Could in that mangled corpse have traced Orestes.  
 They laid the body on the funeral pyre;  
 And, while we speak, the Phocian strangers bear,  
 In a small, brazen, melancholy urn,  
 That handful of cold ashes to which all  
 The grandeur of the Beautiful hath shrunk.  
 Hither they bear him, in his father's land  
 To find that heritage—a tomb!

#### AMERICAN PROCTOLOGIC SOCIETY.

The thirteenth annual meeting of the American Proctologic Society will be held in the Hotel Alexandria, Los Angeles, June 26 and 27, 1911. The officers are: President, George J.

Cook, M.D., Indianapolis, Ind.; vice-president, Jerome M. Lynch, M.D., New York City, N. Y.; secretary-treasurer, Lewis H. Adler, Jr., M.D., Philadelphia, Pa.

Executive Council: Dwight H. Murray, M.D., chairman, Syracuse, N. Y.; George J. Cook, M.D., Indianapolis, Ind.; Louis J. Hirschman, M.D., Detroit, Mich.; Lewis H. Adler, Jr., M.D., Philadelphia, Pa.

Program: Commencing Monday, June 26, 1911, Executive Council meets at 11 a.m. First regular session at 2 p.m. Annual Address of the President. Subject, "Proctologic Recommendations." George J. Cook, Indianapolis, Ind.

Papers—A Review of Proctologic Literature for 1910, Samuel T. Earle, Baltimore, Md.; How Can Diverticulae of the Sigmoid Produce Abscess in the Retro-peritoneal Space? A. Tierlinck, Gand, Belgium; Some Observations Upon Surgical Anatomy and Mechanism of the Colon, Granville S. Hanes, Louisville, Ky.; Treatment of Rectal Diseases by Ambulant Methods, Wm. L. Dickinson, Saginaw, Mich.; Have We an Ideal Operation for Internal Hemorrhoids? A. B. Cooke, Nashville, Tenn.; The Clamp and Cautery Operation for Hemorrhoids, Chas. S. Gilman, Boston, Mass.; Symposium on Constipation: (a) Etiology, Horace Heath, Denver, Colo.; (b) Physiology, S. T. Earle, Baltimore, Md.; (c) Bacteriology and Urinary Findings, John L. Jelks, Memphis, Tenn.; (d) Pathology and Diagnosis, Wm. M. Beach, Pittsburgh, Pa.; (e)

Sequelae Including Autointoxication, A. J. Zobel, San Francisco, Cal.; (f) Psychotherapy, Mechanical, Electrical Treatment, and Massage, Jas. A. Mac-Millan, Detroit, Mich.; (g) Non-surgical Treatment, Dwight H. Murray, Syracuse, N. Y.; (h) Surgical Treatment, Louis J. Hirschman, Detroit, Mich.; Universal Abuse of Purgatives in the Treatment of Constipation, Leon Straus, St. Louis, Mo.; Cancer of the Rectum, J. R. Pennington, Chicago, Ill.; Pigmentation of the Rectum and Sigmoid, with Report of a Case. Jerome M. Lynch, New York City, N. Y.; Observations Upon Relationship of Tuberculosis to Perirectal Suppurations, Collier F. Martin, Philadelphia, Pa.; Reflex Disturbances Referable to the Rectum, T. Chittenden Hill, Boston, Mass.; (a) Malformation of Rectum and Anus, with Report of a Case, (b) Pruritus Ani, with Report of a Case, Donly C. Hawley, Burlington, Vt.; Radiograph in Entero-Proctology, F. C. Yeomans, New York City, N. Y.; Some Practical Considerations of the Etiology of Diarrhoea and Its Treatment, Alois B. Graham, Indianapolis, Ind.; Fads and Fallacies of a Valvotomist, Thomas Charles Martin, Washington, D. C.; Syphilitic Affections of the Rectum and Anus, Lewis H. Adler, Jr., Philadelphia, Pa. This is an excellent programme and all physicians are invited to attend.

#### NEW CALIFORNIA LICENTIATES.

The following successfully passed the California State Board of Medical Examiners at their April meeting:

S. L. Corpe, Hahn. Med. Coll., Ill., '94, (H); Lillian P. Wentworth, Still. Coll. Osteop., Iowa, '05, (O); Allen H. Vance, West Reserve Univ. O., '79, (R); Albert T. Bouffleur, Rush Med. Coll., '87, (R); T. C. Witherspoon, Mo. Med. Coll., St. Louis, '89, (R); J. A. Rice, Hahn Med. Coll., Pac., '09, (H); Edw. A. Crokot, Univ. Manitoba, Canada, '94, (R); Thos. McHugh, Univ. Michigan, '01, (R); W. L. Bowling, L. A. Coll. Osteop., '11, (O); R. L. Tebbitt, Univ. of Minn., '04, (R); Geo. D. Lyman, Columbia Univ. Coll., P. & S., N. Y., '09, (R); Geo. E. Malsbary, Med. Coll., Ohio, '96, (R); E. P. Darlington, Univ. of Penn., '99, (R); G. Hoskins, Cooper Med. Coll., '10, (R); S. Schiro, Univ. of Palermo, Italy, 1900, (R); G. A. Foster, Stanford Univ. of Cal., Med. Sch. of Maine, '08, (R); R. A. Terry, Ind. Univ. Sch. of Med., '10, (R); J. H. Munro, McGill Univ. Can. & Royal Coll., P. & S., Fac. P. & S., Scotland, '03, (R); W. L. Dickerson, Rush Med. Coll., '93, (R); Jas. F. Doyle, Coll. P. & S., Ill., '86, (R); Geo. C. Armstrong, N. W. Univ. Med. Sch., Chicago, '99, (R); A. E. Gooden, Am. Sch. of Osteop., Mo., '10, (O); C. C. Manger, Medico Chirurgical Coll., Pa., '06, (R); H. T. Arvin, Bellevue Hosp. Med. Coll., N. Y., '92, (R); L. C. Kinney, Univ. Penn., '08, (R); J. H. Barnebee, Rush Med. Coll., '02, (R); R. E. Hamlin, Coll. P. & S. of S. F., '07, (R); W. H. Vilas, Rush Med. Coll., Ill., '99, (R); J. F. Willard, Elec. Med. Coll., Ohio, '85, (E); O. B. Fossum, Coll. P. & S., S. F., '09, (R); Geo. H. Roth, Coll. P. & S., S. F., '09, (R); G. C. Wrigley, Coll. P. & S., S. F., '09, (R); J. A. Keown, Harvard Med. Sch., Mass., '94, (R); I. L. Magee, Med. Coll. of Ohio, '83, (R); W. DeW. Boggs, Long Island Coll. Hosp., N. Y., '10, (R); Anna E. Whiting, Pac. Coll., Osteop., '10, (O); Clara J. Stillman, Pac. Coll. Osteop., '10, (O.); J. T. Johnson,



Jefferson Med. Coll., Phila, Pa., '09, (R); E. L. Hook, Pac. Coll. Osteop., '10, (O); W. B. Schwirckow, Rush Med. Coll., '03, (R); C. H. Wimpres, L. A. Coll. Osteop., '11, (O); F. C. Ainley, Johns Hopkins Univ., Md., '06, (R); O. E. Pinneo, L. A. Coll. Osteop., '09, (O); H. M. Hall, Chicago Med. Coll. N. W. Univ., Ill., '83, (R); R. L. Maloney, Atlanta Coll. P. & S., '03, (R); A. A. Blatherwick, Rush Med. Coll., '09, (R); F. W. Rinkenberger, Coll. P. & S., Ill., '06, (R); C. D. Cobb, St. Louis Univ., Mo., '04, (R).

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#### SAN DIEGO PHYSICIANS AND THE RED CROSS.

Editor The Southern California Practitioner, 1414 South Hope St., Los Angeles, Cal.:

Dear Sir:

The enclosed clipping has been brought to our attention. I am quite certain that when the San Diego phy-

sicians adopted the Red Cross as the insignia of their Society they were not familiar with the provisions of the Act of Congress, approved June 23, 1910, a copy of which I enclose. I think you would probably like to make the provisions of this Act public through your excellent publication.

Yours very truly,

CHAS. L. MAGEE,  
Secretary.

The following is the clipping from the Southern California Practitioner, February, 1911:

The San Diego physicians have adopted an insignia consisting of a red cross upon a circle of gold. Outside of the gold background is a circle in white upon which are the words "Physician of San Diego." It is about eight inches in diameter and is to be placed upon the hood of each physician's automobile and also upon the rear end of the car.

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### EDITORIAL NOTES

Dr. Henry Gradle of Chicago died April 6th in Santa Barbara.

Dr. A. F. Zimmerman of Los Angeles now has his office at 418 Lissner Bldg.

Dr. J. R. Callon of San Francisco has located in Chino, San Bernardino county.

Dr. T. E. Cunnane has been reappointed County Physician of Ventura county.

Dr. Geo. B. Walrath of Los Angeles met with a painful street-car accident recently.

Miss Helen D. Jackson is the new Superintendent of the Good Samaritan Hospital.

Dr. J. D. Campbell of Pioche, Nev., has recently been taking a vacation in Los Angeles.

Dr. Elmer R. Pascoe of Los Angeles is taking a post-graduate course in New York City.

Dr. Hill Hastings has taken offices in the Trust & Savings Building, 6th and Spring Sts.

Dr. C. H. Montgomery has located in the Trust & Savings Building, 6th and Spring Sts.

Dr. John W. Pollard, residing at the Hotel Lankershim, Los Angeles, has been seriously ill.

Dr. A. Morgan has been appointed autopsy physician to the Coroner of San Diego county.

Dr. L. G. McNeile, recently of Chicago, has located in the Auditorium Building, Los Angeles.

Dr. Jane Spaulding, for twenty years head of the Cottage Hospital, Santa Barbara, has resigned.

Dr. Thompson B. Wright has recently located in the Delta Building, 426 South Spring St., Los Angeles.

Dr. Ernest W. Fleming has recently changed his office to the Trust & Savings Building, 6th and Spring Sts.

Dr. A. S. Parker of Needles spent several weeks during March visiting his mining properties in Sonora, Mexico.

Dr. C. Worth Norton and Dr. H. B. de Bey have been appointed internes at the Good Samaritan Hospital, Los Angeles.

The people of Long Beach are preparing to entertain all members of the A. M. A. who may visit that prosperous city.

Dr. D. S. McCarthy of Hemet, whose health has been very poor, has gone to his old home in Canada. His brother came for him.

Dr. E. W. Burke of San Bernardino has been appointed member of the Board of Trustees of the Southern California State Hospital.

Dr. P. M. Savage of Chino has been elected to succeed Dr. D. C. Strong as Superintendent of the San Bernardino County Hospital.

Dr. Francis H. Mead, Health Officer of San Diego, broke his right arm while cranking his automobile. He sustained a compound fracture.

At a recent meeting of the San Bernardino County Medical Society, Dr. C. G. Hilliard read a paper on "The Treatment of Chronic Nephritis."

A baby incubator in charge of a physician is to be one of the summer

features on the pier at Venice, the Los Angeles beach resort.

The Arizona Medical Association have engaged a large number of rooms at The Van Nuys where they will have their headquarters.

Dr. R. Watson Graham has offices in the Consolidated Realty Building, Los Angeles. The doctor devotes himself exclusively to the eye.

From the check of Dr. Anne W. Nixon for the entertainment of the A. M. A. we learn that she is now located at 140 South Madison Ave. Pasadena.

Dr. A. J. Murietta of Los Angeles and Arizona, and Miss Mable Gregory of San Francisco were married at the Fairmount Hotel, San Francisco, on April 20th.

Dr. Ernest V. Hall, formerly of Victoria, B. C., has been with professional friends in Redlands and Los Angeles. He has chosen Long Beach for his home.

Dr. R. E. Holder of Columbus, Ind. has made reservations at The Lankershim for himself and Mrs. Holder for A. M. A. days. Dr. Holder is one of Indiana's prominent men.

Drs. C. C. Stephenson and Herbert F. True now have their offices in the Consolidated Realty Building, Los Angeles, their practice being limited to eye, ear, nose and throat.

Thomas J. Jordan, who was said to have been formerly employed as agent of the State Board of Medical Examiners, was arrested in Los Angeles on the charge of embezzlement.

Dr. Ralph W. Reynolds, formerly of Cleveland, Ohio, is now located at 322-324 Chamber of Commerce Building, Pasadena, where he limits his practice to eye, ear, nose and throat.

Dr. Ernest Hall of Victoria, British Columbia, has just paid \$12,000 for a

site for a California home overlooking the ocean at Long Beach. Dr. Hall plans the erection of a handsome residence.

A. M. Cates, Esq., was appointed administrator of the estate of his brother, the late Dr. Horace G. Cates. The estate was appraised at \$150,000, and the administrator gave bond for \$200,000.

The Los Angeles Daily Times says: "Speaking of the approaching session of the American Medical Association in Los Angeles, when the hands of the delegates are taken they should be well shaken."

Dr. Ancil Martin of Phoenix has been elected Delegate from Arizona to the Los Angeles meeting of the American Medical Association. Dr. F. E. Shine of Bisbee will be alternate delegate.

At the recent meeting of the San Bernardino County Medical Association, J. L. Avey, State Senator, reported his experience in handling certain measures advocated by the medical profession.

Dr. Isaac W. Brewer of the United States Army who has been located at Manila, will take a few weeks' vacation in the United States. His address will be The Wyoming, Columbia Road, Washington, D. C.

Dr. Lyman Brumbagh Stookey, Physiologist, Dr. Ethel Leonard, Pathologist, and Dr. Charles L. Bennett, Physician, have offices and laboratories third floor, Consolidated Realty Building, Sixth and Hill Streets.

Dr. Bertrand Smith and Miss Marion MacNeil were married in St. John's Church, Los Angeles, on Wednesday evening, April 6th. Dr. Smith is associated professionally with Dr. W. Jarvis Barlow.

At its April meeting the Long Beach County Medical Society elected

officers, Dr. W. H. Newman being selected as president; Dr. Thomas L. Rogers, secretary and treasurer, and Dr. E. C. Sellery as counsellor.

Dr. Percy McLean died in Monrovia, Cal., April 13th. Dr. McLean was only 23 years of age, and had lived in Monrovia about three years. He was a graduate of the University Medical College of Kansas City.

Dr. C. O. Waterman of Long Beach while riding a bicycle, was struck by Dr. B. R. Townsend's automobile on the evening of April 8th. There was an ugly scalp wound in which Dr. Townsend placed several stitches.

Dr. P. C. H. Pahl, formerly of the Good Samaritan Hospital, has opened offices in the Consolidated Realty Building, corner 6th and Hill streets.

Dr. J. D. Campbell of Pioche, Nev., has been taking a vacation in Los Angeles.

A new Los Angeles city ordinance requires physicians, surgeons and hospital superintendents to report in writing all traumatic cases. The first victim was Dr. H. C. Stinchfield, who failed to report treating a nine-year-old child. The doctor pleaded guilty and was fined \$5.

The American Medico-Psychological Association will hold its sixty-seventh annual meeting in Denver beginning June 19th. The secretary announces that "arrangements are pending for a special California trip including the meeting of the American Medical Association at Los Angeles."

Dr. J. J. Choate, Dr. Edward M. Palette, Dr. Thomas Chalmers Myers and Dr. Joseph Lynn Choate have removed their offices to 624 Trust and Savings Building, northwest corner Spring and Sixth streets. Good for Dr. Choate. These young men are having their influence over him.



The Pathological Society of Philadelphia gave a reception on Thursday evening, April 27th, at 10 o'clock to the University Club in honor of Dr. Jacques Loeb. As a leading medical man of Los Angeles well said, Jacques Loeb is certainly distinguished enough to deserve this honor.

Dr. Clement Biddle of Philadelphia, who has had an experience of thirty years as physician and surgeon of the United States Navy, was recently in Los Angeles and declared that the American Marine is the equal intellectually, and the superior physically of the marine of any other nation.

The American Climatological Association will hold its twenty-eighth annual meeting in Montreal, Canada, June 13th and 14th. The date of the meeting has just been changed in order to allow ample time for special trains leaving Montreal for the Los Angeles meeting of the American Medical Association.

Dr. E. E. Montgomery, vice-president of the American Medical Association, who has had his office on Walnut street, Philadelphia, for many years, has removed to 1426 Spruce street. Dr. Montgomery limits his practice to the office, consultations with other physicians, and operative work.

In a paper on "The California Ground Squirrel," Mr. C. Hart Merriam, Consulting Biologist of the United States Department of Agriculture, says: "Ground squirrels are among the most destructive of our native mammals, causing losses to agriculture amounting to upwards of thousands of dollars each year.

Dr. Fred Baker of San Diego has joined a Scientific Expedition to Brazil. Dr. John C. Branner, head of the geology department of Stanford University, will lead the party, and

the Brazilian government has agreed to furnish Dr. Baker a gunboat with which to penetrate a section of South America of which there is no written record.

Dr. Wm. L. Weber, University of Southern California, Class 1908, is a resident physician at the German Hospital, corner Corinthian and Girard avenues, Philadelphia. Dr. Weber says: "Many Philadelphia medical men are making preparations for the Los Angeles meeting of the A. M. A. in June, and are looking forward to their Southern California visit with great pleasure."

The Orange County Medical Association elected the following officers at its annual meeting at the public library Tuesday evening, April 6th: President, Dr. J. M. Burlew, Santa Ana; vice-president, Dr. Ida B. Parker, Orange; secretary, Dr. John Wehrly, Santa Ana; treasurer, Dr. H. S. Gordon, Santa Ana; librarian, Dr. C. D. Ball, Santa Ana. Installation will take place May 2nd.

A commendable Los Angeles organization is the Celtic Club, the requirements for membership being that the applicant must be of Scotch, Irish, Manx or Welsh descent. The club meets at an informal dinner once a month when Celtic Music, Literature and History furnish the program. At the April meeting Dr. W. T. McArthur, the first vice-president, was the speaker and his address was replete with wit, humor and pathos.

At the meeting of the Board of Regents of the University of California held April 12th, it was decided to accredit all graduates of the Medical School of the University of California and of the Los Angeles Department of the Medical School of the University of California who were graduated from these institutions before their affiliation with the State

University with full standing as graduates of the University of California.

Los Angeles Times on Wednesday morning, May 3rd, said: "President and Mrs. Taft will entertain as guests for a fortnight Dr. and Mrs. William A. Edwards of No. 2600 West Adams street, this city, who will leave today for the East. Dr. and Mrs. Edwards will later sail with a party of Washington friends for Europe, where they will pass several months. Mrs. Taft will probably be a member of the party.

We have just learned of an excellent opening for a general practitioner with good surgical ability. It is in a rich community within twenty miles of Los Angeles. The surgeon there will sell out his home, office, equipment and other real estate for twelve thousand dollars, and will carefully introduce his successor. His cash income from his practice is over ten thousand dollars per year. This is a fine opportunity for a man. Write the Southern California Practitioner.

Dr. Guilford H. Sumner of Des Moines, Secretary Iowa State Board of Health, has issued a valuable bulletin teeming with information in regard to Typhoid Fever—Its Cause and Prevention. Dr. Sumner has a remarkably graphic manner of putting such subjects before the laity. The necessity and best method of abolishing the fly is one of Dr. Sumner's chief topics. The Fifteenth Biennial Report of the State Board of Health of the State of Iowa is another book just issued from Dr. Sumner's office.

The Medical Club of Philadelphia tendered a dinner and reception to President Wm. H. Taft at the Bellevue-Stratford, Thursday evening, May 4th. This dinner was given in recognition of the President's ap-

preciation of the medical profession and its achievements. One potent reason why our great President is so wide awake and thoroughly informed as to the work of the medical profession is the fact that Dr. W. A. Edwards of Los Angeles, his brother-in-law, has justly his high esteem and absolute confidence. Neither of these typical Americans needs the reflected glory of the other.

A Two-Million-Dollar Tuberculosis Fund has been established by James A. Patten of Chicago, who has made money and fame as a speculator in grain and cotton. Mr. Patten has given half a million dollars to the Northwestern University to be expended for medical research into the question of the prevention and cure of tuberculosis, and it is reported that he is to increase this fund to two million dollars, and that he will himself devote personal attention to the administration of this fund. Mr. Patten's interest in this particular field of work is said to be due to the fact that his brother died of tuberculosis after suffering for many years.

The American Medical Association at its annual meeting in Los Angeles will give \$200 as a cash prize for the best six cartoons on any one or all of the following subjects: "Insects in the Causation of Disease," "Beneficent Effects of Vivisection," "Pure Food and Adulterated or Contaminated Food Stuffs." The contest will close on June 20. All cartoons must be done in India ink on cardboard not less than nine by twelve inches. They should be sent to the scientific exhibit, American Medical Association, 422 Auditorium Building, Los Angeles. Notice of intention to participate should be sent to Dr. Frank B. Wynn, Indianapolis.

The following have recently been elected members of the Los Angeles County Medical Association:

Dr. Lillian E. Ray, Johns Hopkins, 1908; Dr. S. J. Brimhall, Minnesota, 1902; Dr. S. G. Edwards, Cincinnati, 1893; Dr. Wesley Thompson, Cincinnati, 1869; Dr. Herbert M. Coulter, Minneapolis, 1903; Dr. Howard Andrews, P. & S., Ill, 1906; Dr. H. J. Andrews, Northwestern, 1907; Dr. C. H. Wood, C. of M., U. S. C., 1905; Dr. R. L. Byron, P. & S., U. S. C., 1909; Dr. Chas. H. Lowell, Cooper, 1896; Dr. Harry F. Markolf, Harvard, 1908; Dr. Anders Peterson, P. & S., U. S. C.; Dr. G. S. Shattuck, Detroit, 1881; Dr. C. W. Harvey, Columbia, 1875; Jacob L. Owen, Kansas, 1892; Charles T. Bullard, Cooper, 1910; Charles L. Bennett, P. & S. Illinois, 1897; E. J. Johnston, Minnesota, 1908; Melvin Ellis, U. S. C., 1900; John C. Paine, Rush, 1909; Edward Swift, Columbia, 1910; Helen O. Anderson, Univ. of Cal., 1896; Harvey J. Forbes, P. & S. Ill., 1903; T. A. Williams, Cooper, 1901; H. A. Rosenkranz, U. S. C. 1910; U. G. Waterman, U. S. C., 1904; Harry K. Emerson, P. & S. Ohio; C. J. Hinman, Northwestern, 1904; F. M. Peironnet, P. and S. St. Louis, 1887; E. F. Tholen, Rush, 1903; Howard W. Seager, Rush, 1896; D. D. Comstock, Amer. Med. Mis.; Hulbert Fuller, Dartmouth, 1887; Charles H. Lowell, Cooper, 1896.

A series of five clinics on the principles of spondylotherapy will be given in San Francisco by Dr. Albert Abrams, on the five days following the meeting of the American Medical Association in Los Angeles. These clinics will be free to members of the American Medical Association, but as space is limited, only those members will be admitted who have applied for cards. In writing for cards of admission to these clinics it is requested

that the time of arrival in San Francisco and the approximate length of sojourn be stated, in order that the clinics may be arranged to conform to the wishes of the majority of the applicants. For further information regarding the clinics address Dr. Albert Abrams, 246 Powell Street, San Francisco, Cal.

The forty-second annual meeting of **The American Medical Editors' Association** will be held at the Alexandria Hotel, Los Angeles, Cal., on June 26 and 27, under the presidency of Dr. Joseph MacDonald, Jr., of New York. Special efforts are being put forth to make this meeting one of the best in the history of the organization, and plans already matured enable the executive committee to assure those who will attend a most interesting session, both from a literary and a social point of view. The officers of the association are: President, Dr. Joseph MacDonald, Jr., of New York; first vice-president, Surgeon General Walter Wyman, of the Public Health and Marine Hospital Service; second vice-president, Dr. Thomas L. Stedman, of New York; secretary and treasurer, Dr. J. J. Taylor, of Philadelphia; executive committee, Dr. W. C. Abbott, of Chicago; Dr. C. L. Stevens, of Athens, Pa., and Dr. G. H. Kreidler, of Cincinnati. Dr. Walter Lindley, of Los Angeles, is chairman of the local committee.

**The Typhoid Bacillus Carrier:** A Review by R. M. Grimm, Assistant Surgeon, United States Public Health and Marine Hospital Service, is a timely document. As member of the California State Board of Medical Examiners we recently asked in the questions on Hygiene: "What is meant by the term 'Typhoid Carrier?'" To our great surprise about



one-third of the applicants had to be marked zero on this. When we asked this question we had no doubt but every physician was familiar with the present meaning of the term. To diminish the spread of infection by carriers the author recommends: "A routine bacteriological examination of the excreta of convalescents should be made in order to determine the time when they ceased discharging typhoid bacilli. When a carrier is discovered, suitable treatment should be instituted in the way of diet and otherwise, in order to encourage the elimination of all the typhoid bacilli and if possible to avoid the chronic stage."

Dr. Jerome M. Lynch of 58 W. 48th St., New York City, says in the Medical Record:

"Finding that the large rubber concerns preserve their rubber by keeping it under water, I decided to try this method with my gloves. I selected a very large jar which, after boiling, I filled with sterile water. The gloves were then boiled and immersed in the jar, where they were kept for two months. When examined I found the gloves all right, but a most disgusting odor from the water. In my next experiment, therefore, I added formalin in the proportion of 1 to 10,000. This makes an excellent preservative and there is no smell.

"Each time the gloves are used they are tested for punctures. If sound they are boiled for twenty minutes, then immersed in the jar. I find that they last indefinitely preserved in this way, unless punctured during operation. Two pairs that I kept in the solution for a year as an experiment I found to be sterile and perfect in texture at the end of that time."

We have received from Surgeon General Walter Wyman a booklet

entitled: "Smallpox and Vaccination in the Philippine Islands." By Victor G. Heiser, Passed Assistant Surgeon, United States Public Health and Marine Hospital Service, Chief Quarantine Officer and Director of Health for the Philippine Islands, and Robert Oleson, Assistant Surgeon, United States Public Health and Marine Hospital Service. The first words of the author are: "At probably no time in the world's history has the efficiency of vaccination as a preventive for smallpox been so conclusively and effectively demonstrated as in the Philippine Islands since American occupation. The evidence of its value is incontestible. During Spanish times it was necessary each year during the dry season to erect in Manila a large temporary hospital to which the many hundreds of victims of smallpox could be taken. The great majority of them died. During the past five years not one person has died in Manila from smallpox who had been successfully vaccinated during the five previous years; nor has anyone died of smallpox in Manila since June, 1909."

Dr. J. A. Munk of Los Angeles was present at the dedication of the Roosevelt Dam on March 18, 1911. In the California Eclectic Journal Dr. Munk says: "The dam is the largest completed project of the Reclamation Service and marks an epoch in the history of irrigation in the arid region. The dam cost \$3,500,000, but with all the other improvements that go with it—the wagon road from Phoenix to Globe, electric power plant, Granite Reef diversion dam and distributing canals—all aggregate the enormous sum of \$8,000,000. The dam was built to save and store the flood waters of the Salt River in Central Arizona and to furnish a regular and permanent supply of water to the farming lands in the Salt River Val-

ley, which is one of the most extensive and fertile valleys in the world. Aside from its commercial importance the Roosevelt Lake with its beautiful wonderful mountain scenery, is destined to become famous as a health and pleasure resort and, as Mr. Roosevelt stated in his speech, will attract thousands of visitors. It is one of the real show places of the Southwest and is of as great interest as the Grand Canyon of Arizona, the Yosemite Valley or the Yellowstone Park.

"The dam is built in a deep, narrow rock canyon on the Salt River, just below where the Tonto Creek empties. It forms a winding lake that is twenty-five miles long and from one to two miles wide."

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#### THE LATE ADOLF KRAEMER.

That Dr. Adolf Kraemer, who died recently in San Diego, was highly esteemed as a man and widely known as a scientist, is shown by the comment of a Swiss paper on his death. The article published is as follows:

"The news of the sudden death of Dr. Adolf Kraemer in San Diego, Cal., caused the greatest consternation and sorrow to his friends near and far. The deceased, a native Hessian, began his academic studies at the University of Glessen, specializing in

botany and zoology. He took his degree of Ph. D. at Basle, Switzerland, and his M.D. at the University of Zurich. Specializing after this in ophthalmology, he attained a worldwide reputation in his line.

"After studying at Paris he became assistant at the clinic of the University of Basle; afterward was assistant to Professor Dr. Fick of Zurich. A book written at this time on "The Animal Parasite of the Eye," for the largest German "Handbook of Ophthalmology," brought him recognition from the entire medical profession. The demand for this book has been so great that a second edition is in process. An earlier work on "The Parasite of Fresh Water Fishes" is an authority today.

"After a few years' practice in Heiden, Appenzell, Switzerland, he went to Southern California, where he acquired a large practice and a widespread reputation. In spite of the Paradisical beauty of his new home over the sea his heart still clung to his beloved Switzerland, and especially to the land of Appenzell, where he desired to devote himself to research and writing before the evening of his life. But the inexorable hand of death has torn him away much too early from his practice and from science, which can ill afford to lose such earnest men."

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## BOOK REVIEWS

We have received the following reprints: (1) Submucous Resection for the Correction of Septum Deflections With a Description of the Author's Special Instruments and Their Use in 130 Cases. By Myron Metzenbaum, B.S., M.D., Cleveland, O. (2) Hyoscine Hydrobromide as an Adjunct to Cocaine Anesthesia, and as a Preven-

tive to Cocaine Poisoning. Myron Metzenbaum, B.S., M.D., Cleveland, O. (3) A Plea for a State Institution for the Treatment of Chronic Alcoholic and Drug Habitues. By R. E. Bering, M.D., San Francisco. (4) Some Phases of Asthenopia. By Dwight W. Hunter, M.D., New York. (5) The Personal or Business Side of a Doctor's Life.

By J. MacDonald, Jr., M.D., New York. (6) Surgical Treatment of Trifacial Neuralgia. By Chas. D. Lockwood, M.D., Pasadena, Cal. (7) Venereal Diseases in Children, Their Causes and Preventive. By Charles D. Lockwood, A.B., M.D., Pasadena, Cal. (8) Mistakes We are Making With Children. By M. Evangeline Jordon, Los Angeles, Cal. Associate Professor of Operative and Clinical Dentistry (Children's Teeth), University of Southern California. (9) A Brief Review of the Applications of Roentgen Rays in Diagnosis. By E. W. Caldwell, M.D., New York. The Agnostic In Medicine. By James W. Ward, M. D., San Francisco.

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A TREATISE ON DISEASES OF THE SKIN. FOR THE USE OF ADVANCED STUDENTS AND PRACTITIONERS. By Henry W. Stelwagon, M.D., Ph.D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Sixth edition, revised. Handsome octavo of 1195 pages, with 289 text-illustrations, and 34 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$6.00 net; Half Morocco, \$7.50 net.

Little, if any, change is made in the opening pages of introductory remarks and we naturally find classification of skin diseases the same as in former editions.

However, much new matter has been added in this edition. The article on pellagra has been rewritten in conformity with recent investigations of this disease, in Europe and in our Southern States. Excellent illustrations of the cutaneous involvement of the dorsal surfaces of the hands and wrists are given. "The eruption first is erythematous in character and primarily dark red in color, which later becomes dark brown; and is fairly symmetrical. It appears on uncovered portions, those which are commonly exposed to the sun, as the back of the hands and lower forearms, face;

and in persons who go barefooted, on the lower part of the legs and dorsal surface of the feet." Dock's more recent studies in the South would indicate that while the influence of the sun is undeniable, there is also a predilection by the disease for the regions enumerated, as the distribution remains the same in cases where the entire body is exposed. While a comparatively new disease in our literature, its wide dissemination and its gravity should put us on our guard. Its symptom complex is—dermatitis, usually mild, involving the backs of hands, lower forearms, the face, and often dorsal surface of feet, with digestive disorders, frequent diarrhoea, and nervous involvement of melancholia and despondency.

The description of Sporotrichosis on pages 1118 to 1122 is the first text-book treatise on this subject. "The disease is due to a fungus, the sporotrichium, as primarily discovered by Schenk, and later confirmed by Hektoen and Perkins." From a trivial injury of the skin, most often of the hand, the fungus enters the lymphatics. Slow development is characteristic. "The seat of injury may or may not become sluggishly inflamed, and develop into a small dermic, sometimes sub-dermic nodule, and which may or may not soften or break down; or the point of injury may develop into a sluggishly inflamed discharging sore; or there may simply result an insignificant abrasion or sore, which has almost or entirely disappeared before the other formations have developed." "About the same time or a little later a sub-cutaneous nodule will be felt at the lower end of the forearm—its formation is successively followed by several or more such formations higher up the arm, along the lymphatic vessel, which can be felt as a hard cord." Lesions of syphilis and tuberculosis



often closely resemble this disease, and diagnosis can be confirmed or disproved by cultural methods. "De Bermann and Gougerot have found that an early orchitis (in fifteen to twenty days) in the rat after intraperitoneal inoculation with material from the suspected case is diagnostic."

The itch caused by *pediculoides ventricosus*, a mite found in hay and straw, is fully discussed, and illustrations of the parasite are given. It would seem that this is an old favorite, being the probable cause of "prairie itch", "swamp itch", "lumberman's itch", "Ohio scratches", "Texas mange", and others.

Brown-tailed moth, a recent importation from Holland, is responsible for a dermatitis that receives consideration on pages 1131 and 1132. This insect, *Euproctis crysorrhoea*, has spread over New England, a part of Canada, and westward. Mercuric chloride solution 1.1000 or 1.2000, followed by flexible collodin paint, is recommended by Prof. Holland as the most successful treatment.

The growing importance of tropical diseases has caused several new subjects to receive attention in this edition. Gangrosa, tropical ulcers, and ulcerating granuloma of the pudenda are described and several illustrations given. Pusey's discovery of carbon-dioxid snow (1905) added a valuable therapeutic agent for treatment of pigmented and vascular naevi, lupus erythematosus, keratoses, superficial epithelioma, and the like. "The method of procuring the snow is simple. It is generally obtained from the large steel cylinder of liquid carbon dioxid, supplied by soda-fountain supply companies. A thick chamois skin is tied over the gas nozzle in such a manner as to leave a small pocket opposite the gas outlet; the outlet end should be dipped down about six

inches lower than the other end. The gas is turned on and the snow collects in the chamois pocket." By manipulation through the chamois the snow is moulded into a ball, or into a pencil by pressing it into an ear speculum. In handling the snow pencil, protect the hand with the chamois. To treat a diseased patch, apply with moderate pressure for from ten to sixty seconds. This acts as a freezing cauterant, and the resulting scar is often scarcely perceptible.

Notwithstanding the large amount of new matter appearing in this edition, the size of the book remains practically the same, as relatively unimportant subjects have been transferred from the text to foot notes. A number of changes in illustrations can be noted, indistinct or less appropriate pictures have been replaced by new ones. Throughout the work is of the high standard that we naturally expect from this author. C. W. D.

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PHYSICAL EXAMINATION AND DIAGNOSTIC ANATOMY. By Charles B. Slade, M.D., Instructor in Physical Diagnosis, University and Bellevue Hospital Medical College, New York. 12mo. of 146 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth \$1.25 net. W. B. Saunders Company Philadelphia and London.

An excellent small work covering normal physical diagnosis. If every student would become well grounded in the normal human body, many mistakes would be avoided, when pathological conditions have to be diagnosed.

The author asks for care, systematic order, and thoroughness in examination. On pages 49 to 52 inclusive is given a "Table of Underlying Contents in the Regions of the Chest." Much regional anatomy is here given in very brief form. Section IV contains many excellent charts, giving surface markings of the chest, and

areas of relative and absolute dullness of the solid organs it contains.

Slade gives his method of palpating the liver, when gas or fluid distends the abdomen and makes examination difficult. "In such a case, if we lay the tips of the fingers on the surface, below the free border of the ribs, without pressure, and suddenly jab them in with moderate force, the impact with the surface of the liver is felt distinctly; the liver recedes promptly; but by repeating the above over various neighboring places, we easily determine the margin of the liver. The fingers must be raised completely between each jab, to allow the liver and abdominal wall to resume their former relations. This same method may be applied to the palpation of other solid and movable abdominal organs or tumors."

C. W. D.

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COLLECTED PAPERS—By the Staff of St. Mary's Hospital, Mayo Clinic, Rochester, Minnesota, 1905-1909. Octavo of 668 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50 net. W. B. Saunders Company, Philadelphia and London.

All of the material in this book has been published in current medical literature and has probably been read by all physicians, certainly by every English-speaking physician, and by abstract and translation by many foreigners, so keen is the interest in this extraordinary Rochester clinic.

It is in fact an indexed collection of reprints and its very full and detailed index adds greatly to the convenience of possessing in one volume the work of the staff of St. Mary's Hospital which, besides the Mayo's, consists of twelve competent observers, many of whom are as well known in their special lines of research as their chief, the Mayos.

The reprints have been arranged under the various systems, as the alimentary, the genito-urinary, the duct-

less glands, and so on, so that the reference is easy for a busy man.

All of these papers are accompanied by the well-known graphic illustrations that we are accustomed to see produced by this staff; printed on excellent paper in the usual good style of the Saunders Company, although in this book may be noted some evidences of haste in preparation. On page 400, five lines from the bottom there is a misspelled word and on page 401, the amount of fluid that can be injected into the renal pelvis without pain (50 c. c.) does not correspond with the author's statement on page 401 (40 c. c.)

It was a very happy thought to bind the papers into one book and all who are interested in medicine and surgery should possess a copy of it.

WILLIAM A. EDWARDS.

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PRACTICAL TREATMENT,—Vol. 1. A handbook of practical treatment. In three volumes. By 79 eminent specialists. Edited by John H. Musser, M.D. Professor of Clinic Medicine, University of Pennsylvania; and A. O. J. Kelly, M.D., Assistant Professor of Medicine, University of Pennsylvania. Volume 1: Octavo of 909 Pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Per volume: Cloth, \$6.00 net; half morocco, \$7.50 net. W. B. Saunders Company. Philadelphia and London.

In reviewing this work it becomes the duty of the reviewer to mention the death of the associate editor, A. O. J. Kelley, A.M., M.D.

Dr. Kelley died on Feb. 25th of the present year from complications following an attack of influenza. He received the degree of A.M. in 1888 from LaSalle College. He then graduated from the medical department of the University of Pennsylvania in 1891, and during the following two years did post-graduate work in London, Dublin and Vienna. He afterward became associate professor of medicine in his alma mater; professor of the theory and practice of medicine in the University of Vermont, and professor

of pathology in the Women's Medical College of Pennsylvania. Aside from his work in the present treatise, he wrote a text-book on the Practice of Medicine published in 1910. He was for several years editor of the American Journal of the Medical Sciences. This brief review of Dr. Kelley's life is mentioned to show partly the qualifications of the editorship of the work.

The high standing and reputation of John H. Musser is so well known that no comment is necessary.

In looking over the seventy-nine eminent specialists who have contributed to this work it would be seen that a selection of the most prominent men in the profession has been made.

The first volume, which includes The General Principles of Dietetics; Diseases of the Blood; and Diseases of the Ductless Glands, show the work of experienced authors in its general make-up.

The first chapter on "Practical Treatment and the Fundamental Principles of Therapeutics" is written by John H. Musser himself.

Following this is a chapter by Chas. H. Harrington and A. C. Abbott on "Preventive Treatment."

Thus we have considered at the beginning of the work that department of medicine which in the coming years must become pre-eminent.

Very properly to follow this comes a chapter on "The General Principles of Dietetics" by David L. Edsall, M.D. This chapter properly is quite an exhaustive one and is well placed to remind us that drugs are not the main things to be considered in the care of the sick. This subject is still farther specialized by a chapter on "The Dietetics of Infancy" by Maynard Ladd, M.D.

Following we have a chapter on "The General Principles of Serum

Therapy" by Ludvig Hektoen, and "The General Principles of Organotherapy" by Warren Coleman; then a chapter on "The Rest Cure, The Work Cure, and Psychotherapy" by Chas. W. Burr; after which comes "Exercise, Massage and Mechano-therapy" by R. Tait McKenzie.

Following this Guy Hinsdale gives a chapter devoted to "Hydrotherapy and Balenotherapy."

The succeeding article is on "Climatotherapy and Health Resorts" by Henry Sewall, which as a whole is an exceedingly well written and instructive chapter.

Of Southern California, Dr. Sewall says: "The region embraced between the San Gabriel range of mountains and the coast, well merits the title of the Garden Spot of the Earth." It is a beautiful and accurate description of this vicinity, except that he has given the population of Los Angeles as 80,000, which could neither correspond to the population of 101,000 in 1900, or of 319,000 in 1910, as given by the national census. But this is a minor error, appealing only to the pride of those residing in this vicinity. His description of Idyllwild on page 561 is of the institution as it existed previous to the year 1903. It was about that time that Dr. Sewall made a visit to Southern California and his information doubtless comes from his personal experiences at that date.

And so the volume goes on, taking up the various branches of the subject in logical sequence, written by men of national and international reputations. But a word must be said of the index. It is complete, extensive and accurate, thus adding to the usefulness of the volume for ready reference. There is a place in every working library for a treatise of this kind, and no physician of the present time,



whether he be teacher or practitioner in either medicine or surgery or any specialty, can afford to be without it.

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DAWN OF THE FOURTH ERA IN SURGERY AND OTHER SHORT ARTICLES. By Robert T. Morris, M.D., Professor of Surgery, New York Post Graduate Medical School and Hospital. 12mo of 145 pages. Philadelphia and London: W. B. Saunders Company, 1910. Artistically bound. \$1.25 net. W. B. Saunders Company, Philadelphia and London.

The author of this little book is an able surgeon, an original thinker, and a very charming writer. Many of the ideas advanced are entirely original with him, his experience is large and his candor complete. Even surgeons of large experience can read the book to advantage, and those of lesser skill and practice will find it a stimulating and exceedingly valuable guide in their work.

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DIFFERENTIAL DIAGNOSIS. PRESENTED THROUGH AN ANALYSIS OF 383 CASES. By Richard C. Cabot, M.D., Assistant Professor of Clinical Medicine, Harvard Medical School. Octavo of 753 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50 net. W. B. Saunders Company, Philadelphia and London.

This is a very new book, written upon a new and original plan by the author. Within the limits of a book review it cannot be praised too highly. Five hundred cases taken from the author's private and hospital practice, are analyzed from the point of view of the **presenting symptom**. A chapter is given to each of twenty-two common symptoms, headache, pain in special parts of the body, fevers, chills, coma, convulsions, et. al. In the discussion the direct method is used and all unessential details are omitted.

The graphic method is employed with lavish freedom and singular skill. Each chapter is preceded by a graphic representation of the causes of the symptom discussed, in which their relative frequency is shown by heavy black horizontal lines.

Most of the cases are illustrated by figures of the body in which are represented graphically the areas in which pain exists or abnormal signs are found by the examination. The result is a mental picture in the mind of the reader which is even more clear than that given by an examination, and the picture in the book is available for instant and repeated re-examination at a glance. No physician or surgeon who can afford to have it can afford not to have it.

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PERSONAL HYGIENE AND PHYSICAL TRAINING FOR WOMEN. By Anna M. Galbraith, M.D., Fellow of the New York Academy of Medicine, 12 mo. of 375 pages, with original illustrations. Philadelphia and London: W. B. Saunders Company, 1911. - Cloth, \$2 net. W. B. Saunders Company, Philadelphia and London.

Here is one of those useful books for physicians, nurses and the intelligent laity. The one page of instruction on

#### ENEMAS

gives such a clear, practical description of a sensible method that it is worth repeating.

#### FOR CONSTIPATION,

in which the object is to unload the bowel as quickly as possible, one or two pints of water, at a temperature of from 104 to 110 deg. F., is made into a suds by means of castile or other good soap, and poured into a fountain syringe. If the patient is administering the enema to herself, the best position is the knee-chest. In this the patient kneels on the floor, the thighs are held rigid, and while the shoulders are brought to touch the floor, the face is turned to one side. The position can only be taken satisfactorily with the corsets and all tight bands around the waist removed. In this position gravity causes the intestines to fall upwards toward the waist, and the water naturally follows this course. In this position the water goes up higher,

and is retained longer, than when taken in any other position. Two pints of the soap suds are prepared at the proper temperature, and the patient uses as much of this as she feels she can retain. The water should be retained from five to ten minutes to get the best results. For the purpose of washing out the large intestine more water is used, but not more than two quarts should be used for this. The position of the patient and the temperature of the water are the same. But for this clyster, instead of adding soap to the water, cooking salt is used, in the proportion of one teaspoonful of salt to one pint of water. This

#### LAVAGE OF THE INTESTINE

removes rapidly large masses of decomposing material, swarming with microbes and ptomaines and the toxins produced by them. It also increases the activity of the portal circulation."

How satisfactory it would be if every patient had a slip with these printed directions. Better still for both physician and patient if each family had a copy of this book.

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**DIAGNOSIS OF SYPHILIS.** By George E. Malsbary, M.D. Professor of Medicine, Cincinnati Polyclinic and Post-Graduate School. Author of a "Text-book on the Practice of Medicine," and Monographs on "Treatment of Tuberculosis," "The Rheumatisms," "The Septic Infections," "Meningitis," and "Cerebro-spinal Meningitis" (In Woods' "Reference Handbook of the Medical Sciences"), Member of the Academy of Medicine of Cincinnati, The American Medical Association, The Cincinnati Obstetrical Society, etc. Cincinnati: Harvey Publishing Company 1911.

Professor Malsbary, the author, formerly of Cincinnati, is now located in Los Angeles.

In this volume the subject of Diagnosis of Syphilis is considered as follows: First, attention is paid to laboratory diagnosis, special stress being placed upon the methods of recognition of the spirochete pallida, and the technic and relative value of the Was-

serman and other serum tests. Second, hereditary syphilis has received extended consideration. Third, the acquired form of syphilis is discussed in its various stages. Fourth, the syphilitic affections of the various organs has received detailed description. Fifth, there are 112 pages devoted to recent bibliography bearing on the subject. We notice that Dr. Granville MacGowan, of Los Angeles is one of the authorities to whom Professor Malsbary refers.

The author says "syphilitic affections of the heart have been recognized from time immemorial. Virchow declared that many of the cases described by older writers as tubercle of the heart were probably cases of syphilis. At any rate all parts of the heart may be affected by syphilis. The most frequently observed lesions are gumma of the muscle of the heart and fibrous syphilis scars in the myocardium." In an extensive treatment of syphilis of the larynx it is stated that: "The third stage of syphilis of the larynx is marked by gumma, with the formation of superficial or deep ulcers and subsequent cicatricial stenosis.\* \* \* The deep syphilitic ulcer of the larynx is one of the most important lesions with which we have to deal. The deep ulcer appears usually from five to ten years after infection and results from the breaking down of a gumma." The paper, typography and binding of this book would satisfy the exacting taste of a bibliophile. In the text we have evidence of wide reading and the keen laboratory and clinical observation of a well trained mind.

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**THE BLUES.** (Splanchnic Neurasthenia). Causes and Cure. By Albert Abrams, A.M., M.D. (Heidelberg) F.R.M.S., etc. Fourth Edition. E. B. Treat & Co. 1911.

The fact that this book has reached a fourth edition is a testimonial which it deserves. The theory advanced is

that splauchnic neurasthenia has its origin in congestion of the abdominal veins. The cure proposed is an attempt to restore vigor to the circulation by means of massage, electricity and exercises. The style is good, the reasoning is correct physiologically and the conclusions convincingly presented.

The principles of treatment and apparatus suggested are very thoroughly described.

The book can be cordially commended as an admirable guide for the cure of an important class of invalids.

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NEW AND NONOFFICIAL REMEDIES, 1911: Containing descriptions of articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to Jan. 1, 1911. Price, paper, 25 cents; cloth, 50 cents. Pp. 282.

This is the 1911 edition of the annual New and Non-official Remedies, issued by the Council on Pharmacy and Chemistry of the American Medical Association, and contains descriptions of all articles approved by the Council, up to Dec. 31, 1910. There are also descriptions of a number of unofficial non-proprietary articles which the Council deemed of value. The action, dosage, uses and tests of identity, purity and strength of articles are given.

In the arrangement and the scope of individual descriptions, the present edition does not differ widely from the 1910 edition, but it contains about twenty-five additional pages, these being required to describe the articles accepted by the Council during 1910.

Besides indicating to physicians the proprietary articles which the Council's examination has found to be honestly marketed, and containing accurate descriptions of these articles, all similar articles are arranged under group headings; thus the physician at a glance can learn that atoxyl and soamin are practically identical ar-

ticles, and that arsacetin is a closely related body. Again, the several proprietary solutions of the blood-pressure-raising principle of the suprarenal gland are listed under a general title "epinephrin," and the manner in which the solutions differ from each other can be learned at a glance. In the same way, the medicinal foods are brought together and their relative value compared.

#### CASE HISTORIES IN PEDIATRICS.

A COLLECTION OF HISTORIES OF ACTUAL PATIENTS, SELECTED TO ILLUSTRATE THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF THE MOST IMPORTANT DISEASES OF INFANCY AND CHILDHOOD. By John Lovett Morse, A.M., M.D., assistant professor of pediatrics, Harvard Medical School, associate visiting physician at the Infant's Hospital and at the Children's Hospital, Boston, Mass. Containing 320 octavo pages and a few illustrations, price, express prepaid, \$3. William Leonard publisher, 101 Tremont street, Boston, Mass.

Dr. Morse's book, case histories in Pediatrics, comprises one hundred actual histories selected to present as thoroughly as possible for physicians, a post-graduate course in diseases of children.

Each history is presented under the captions, history, physical examination, diagnosis, prognosis and treatment.

Much attention is given to diagnosis, which is thoroughly discussed by naming diagnoses which might with some reason be made, and eliminating each in turn by careful reference to clinical signs and symptoms, the final diagnosis being that which cannot be set aside and which all symptoms support.

Treatment has received most attention. Both diagnosis and treatment have in each case been verified by subsequent history and are hence without error.

The book is original and thorough and the most interesting as well as the most valuable in this department for the general practitioner. W. A. E.



## THERAPEUTICAL HINTS

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Years ago the Abbott Alkaloid Company of Chicago essayed to make epsom salts palatable, and they succeeded. Abbott's Saline Laxative affords all the goodness of pure, full-strength magnesium sulphate without its objectionable features. With water it yields a sparkling, cooling draught which no patient will refuse.

Abbott's Saline Laxative is a balanced-just-right preparation. It is regular in action. It acts energetically yet gently. It does the work and never gripes nor distresses.

In full doses it serves perfectly as a quick purge. In summer toxemias, to clear the bowel tract of toxin-breeding bacteria-feeding waste, it is just the thing. In small daily doses in constipation, biliousness and liver torpor it is better and cheaper than the mineral waters so blatantly exploited.

The company will send a sample bottle on request. Write for it.

Most cases of la grippe will improve by being made to rest in bed and encouraging skin and kidney action, with possibly minute doses of blue pill or calomel. Add to this the use of antikamnia and salol tablets, two every three hours in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from an antikamnia and codeine tablet every three hours. Throughout the attack and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time. In addition to these therapeutic agents, the mental condition plays an important part, and the practitioner must not lose sight of its value. Cheerful company, change of scene and pleasant occupation are all

not only helpful, but actually necessary in curing the patient.

Boas has found Magnesium Salicylate the best antifermentative drug, particularly where there is flatulence, with the particular advantage of not causing constipation. He uses it in doses of 15 to 30 grains three times per day. Where constipation and catarrhal inflammation are associated with the flatulence, small repeated doses of castor oil are recommended.

Magnesium Salicylate tablets (Schering) contain 5 grains of pure Magnesium Salicylate with an addition of a small quantity of Cocoa, the latter improving the taste and likewise facilitating ready disintegration.

As has been demonstrated by Zuelzer, Dohrn and Marxer, normal intestinal peristalsis is stimulated by a specific cellular product (hormone) which occurs in substantial quantities chiefly in the spleen. This product is now isolated by special process by the Schering Chemical Works of Berlin, Germany, and marketed under the name of Hormonal. It is carefully sterilized and the peristaltic efficacy of each lot is tested by animal experiment. Hormonal is indicated above all in the various forms of chronic constipation which fail to yield to or are not permanently relieved by the customary treatment.

Amid the veritable swarm of new medicinal agents of all varieties that have been introduced to the therapist during the last twenty years, and in spite of the great advances in general medicine during the same period, there has not as yet been proposed any remedy which can successfully compete with iron in the treatment of anemic and generally devitalized conditions. This metallic element, in one

form or another, is still the sheet anchor in such cases, and when intelligently administered in proper form and dosage can be depended upon to bring about marked improvement, provided serious incurable organic disease is not the operative cause of the existing blood impoverishment. The form in which to administer iron is, however, very important. The old, irritant, astringent martial medication has had its day, and properly so. Probably the most generally acceptable of all iron products is Pepto-Mangan (Gude), an organic combination of iron and manganese with assimilable peptones. This preparation is palatable, readily tolerable, promptly absorbable, non-irritant and still distinctly potent as a blood builder and general tonic and reconstructive.

No greater an authority upon gynecological diseases than Sims could be quoted, and from the fact that he prescribed and recommended the use of Hayden's Viburnum Compound in certain gynecological and obstetrical conditions, is weighty evidence of its therapeutic efficiency and reputation which it enjoyed with the older members in the profession.

That it has continued to serve as a satisfactory remedy since the time of Sims, in the treatment of dysmenorrhea, menorrhagia, metrorrhagia, threatened abortion, rigid os, etc., its increasing popularity with the profession indicates which should warrant it worthy of a trial in these diseases, when they are presented to you.

To those physicians not familiar with the genuine H. V. C., as originated by Dr. Wm. R. Hayden, a sample with formula and literature will be forwarded upon request to the New York Pharmaceutical Co., Bedford Springs, Bedford, Mass.

In addition to the qualities that have given to K-Y Lubricating Jelly its great popularity as a surgical lubricant, it has been found to possess emollient, soothing and healing properties that make it invaluable for an exceptionally wide variety of other uses.

The following are among the most important of the conditions in which it has been employed with conspicuous success:

1st—For relieving the pruritus due to diabetes or uremic conditions. K-Y is soothing and markedly anti-pruritic in these distressing complications and its liberal use is invariably followed by the most gratifying relief.

2nd—For chafing and pruritus caused by leucorrheal or periodic discharges, K-Y liberally applied to the affected area promptly allays the irritation and almost always affords immediate relief.

3rd—For properly caring for the skin during and following measles and scarlet fever. Many physicians make a practice of anointing the bodies of their measles and scarlet-fever patients from head to foot with K-Y; in this way they afford gratifying relief from itching and irritation and effectively prevent dissemination of infectious material.

K-Y has many other uses—in addition to the foregoing and its regular employment for lubricating catheters, rectal tubes, specula, etc.,—which will be suggested by its notable cleanliness, its water solubility and its freedom from greasiness. It means everything to the physician as well as to the patient that it never stains, discolors or soils the bedding, clothing, dressings or wearing apparel.

Liberal samples will be sent post-paid on request by

VAN HORN & SAWTELL,  
307 Madison avenue, New York.

## THE BUGBEAR OF INDIGESTION.

"It is often said that ours is a 'a nation of dyspeptics.' Medical men appreciate how apt this statement is, and never was there a time when it was more true. Only yesterday one of them remarked, with a touch of humor, that 'people are living so fast today that they do not stop to masticate their food'—a wise observation, we must admit.

"And besides—in the matter of eating have we not as a race departed from the so-termed simple life? Have we not in more than one way become denatured rather than civilized? It seems that the things people eat today are censored to tickle the palate, rather than nourish and upbuild the body,—and the consequence of such pleasurable and improper eating is a disordered stomach."—From Brochure on Taka-Diastase.

One is tempted to quote further from this booklet, so interesting is the story—in subject-matter and in the manner of its telling. To do so, though, were to defeat the present writer's object, which is to insure a wider audience for the booklet itself—a booklet which is well worth having, whether or not one expects to avail himself of its therapeutic suggestions.

As the quoted paragraph attests, the brochure is well written. Its literary flavor, however, is but half its charm. In its physical make-up the booklet is a distinct novelty, its quaint cover design, its fitting inner embellishments, and its oriental suggestiveness lifting it well out of the casual and commonplace.

The brochure tells how Taka-Diastase came to be—tells how it is made, and in the language of the distinguished chemist and scientist who evolved and gave to the world this valuable ferment. It explains,

# Svapnia

**Purified Opium  
With a Fixed  
Morphine Standard**

SVAPNIA possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

Sold by druggists generally.

**THE CHARLES N. CRITTENTON CO.**

Sole Distributing Agents,

115 Fulton Street, New York.

*Sample and literature on application.*

in attractive, readable form, how Taka-Diastase acts in defective starch-digestion, in gastritis, in diarrhoea and constipation, in wasting diseases, and in the diet of infants. It contains a full list of Taka-Diastase products and gives hints as to dosage. Altogether it is an important little work, and one that readers of the Southern California Practitioner are advised to send for. A copy may be obtained by any physician by addressing a request for the "Taka-Diastase Brochure" to the publishers, Park & Co., at their home offices in Detroit—providing, of course, the edition has not previously been exhausted.

Valuable as are rest and dietetic regulation in the treatment of nervous disorders, it is generally recognized that effective tonics are always neces-



sary. For instance, in chorea and the restorative stage of poliomyelitis, it is often surprising to note the remarkable impetus given to convalescence by the use of Gray's Glycerine Tonic Comp. Its administration promptly stimulates the appetite, aids digestion, and so improves the whole nutrition that recovery is substantially furthered and hastened. The same thing holds true in neurasthenia, and the benefit that almost always follows the use of this remedy is invariably as gratifying to the practitioner as it is to the patient.

Glandular tuberculosis presents a problem to the clinician not easy of solution, for its management involves not alone the application of drugs, but also the selection of proper diet and the ordering of and obedience to a hygienic regime which may be extremely difficult of regular enforcement. Next to fresh air and sunshine, an abundance of nutritious food, cod liver oil offers the largest measure of success and is a necessary adjunct to the foregoing measures. Since the majority of these patients are children of tender years, great care in the choice of the cod liver oil product must be exercised if the physician would derive from it the fullest remedial benefits.

The essentials of a cod liver oil preparation are effectiveness and palatability, and these qualities are surely found in Hagee's Cordial of the Extract of Cod Liver Oil Compound. For these reasons Cord. Ext. Ol. Morrhuae Comp. (Hagee) is especially indicated in scrofulous conditions, and will prove to be the physician's most dependable selection from materia medica. It may be continued for indefinite periods.

Few articles appearing in the medical press in recent months have attracted more attention and comment than that by Dr. John B. Murphy, of

Chicago, published in the Journal of the American Medical Association of September 24, 1910, in which the writer detailed the striking results obtained by him through the hypodermic administration of Sodium Cacodylate in the treatment of syphilis. Physicians who have not seen the article in question will be interested in the following abstract, as published in Therapeutic Notes:

"Administered in doses of  $\frac{1}{2}$  to 2 grains hypodermically, its action was prompt and efficacious. Chancres became clean ulcers without induration in forty-eight hours; mucous patches cleared up in twenty-four to forty-eight hours; ulcers of the palate and pharynx healed in three to six days. In a child nine months old  $\frac{1}{4}$  grain injected into the pectoral muscle caused a papillary syphilide to disappear in forty-eight hours. Two 2-grain doses, twenty-four hours apart, completely relieved the pain of a patient who suffered from active gastric crises (leptic) which usually lasted three weeks. An advancing perforating ulcer of the palate, which had resisted injections of  $\frac{1}{4}$  grain of mercuric bichloride daily, promptly yielded to Sodium Cacodylate, two injections of  $\frac{3}{4}$  grain each. The ulcer was healed in six days.

"Dr. Murphy suggests that Sodium Cacodylate be employed in primary doses of 2 to 4 grains, depending on the size and strength of the patient, and not repeated within three or four days unless there are special indications for it."

Sodium Cacodylate, in sterile solution, is marketed by Parke, Davis & Co. in sealed glass ampoules containing  $\frac{3}{4}$  grain and 3 grains, respectively, of the arsenic salt. In this connection it is proper to emphasize the importance of specifying a preparation that is known to be pure. Parke, Davis & Co. lay especial stress upon the purity of their product.

# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, JUNE, 1911.

No. 6

Editor,

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DR. GEO. L. COLE, DR. W. JARVIS BARLOW, DR. F. M. POTTENGER  
and DR. WILLIAM A. EDWARDS.

## PELLAGRA.\*

BY GEORGE DOCK, M. D., ST. LOUIS, MISSOURI.

When I accepted your invitation to speak here I had a natural diffidence about speaking on some subject better known to you than to me and it occurred to me, as I have long been interested in a comparatively rare disease, that it might be interesting to you to have your attention called to it, if only informally, for when a subject is presented in this way it sometimes makes more of an impression than when read in a medical journal, and I determined therefore, to speak of pellagra.

Pellagra is not of especial interest because of its practical importance, because it is comparatively rare in this country. Its chief interest lies in the fact that it brings up some very curious questions of pathology and diagnosis. It is also of interest for the reason that we have an idea we cannot get in America the more serious exotic diseases because we are too clean, get too much fresh air, are too progressive, etc. Some people have an idea that we can never get

such diseases as oriental plague, cholera or leprosy because we are *we*. Now, pellagra brings us up short at that point and shows us the fallacy of any such idea.

As regards the extent of the disease in this country, accurate students of statistics have stated there are about five thousand cases, but as a matter of fact the figures represent guess work, because many patients live in places where there are no doctors at all, or where the doctors know little about pellagra, and because it is a disease that may long go unrecognized, even by one familiar with the condition. Hence, it is safe to say that there are at least ten thousand cases in this country and probably more. That is not a large number compared with the number of cases of typhoid, tuberculosis, or syphilis, but still it is something. The disease is distributed all through the Southern States, and as far West as Illinois, and including Texas.

An interesting question is whether

\*Read before the Los Angeles County Medical Association, Meeting of March 31, 1911.

it is a recent visitor or has long been here. Scattered through the literature are cases running back twenty-five years or more, supposed to have been pellagra, but it is not often easy to determine the character of a case from the journal description. Personally I have seen cases that seem to have existed for twenty-five years, according to the history, and many where the relatives give a history of clear symptoms at least four years. Last year Dr. Kerr, who was one of the surgeons at Andersonville prison, told us at a pellagra conference, that he was quite confident pellagra was prevalent and very fatal in Andersonville prison. The records show that scurvy and hospital gangrene were very frequent and it would have been easy to mistake pellagra for both these conditions as well as typhoid fever. Dr. Kerr states that Dr. Joseph Jones made many pictures of the cases that were apparently pellagra, and these may be unearthed from the mass of material stored in the archives in Washington.

My experience leads me to believe the condition is increasing. When I went to New Orleans in 1908 pellagra was one of the diseases I put out a drag net for and during the first year we found a few cases that we thought might be pellagra. We also had our skin specialists and neurologists see suspicious cases, but not for many months did we find undoubted cases of pellagra. Doubtless some were in too early a stage to be easily recognized. But in the fall of 1909 cases began to come in in great numbers and in November, I was able to show twelve at a meeting of the Southern Medical Association when I gave a clinic on pellagra. These were usually sent in as cases of insanity, or "skin disease." Since that time the number of cases has increased and last year we were able to see about

forty, and a number of others that were probably pellagra in atypical stages. I believe that in the last few years the disease has increased rapidly. It is important not to lose sight of the fact that pellagra is one of the most difficult conditions to recognize. Even in old pellagra countries many cases are not diagnosed. Cases are isolated and treated for pellagra, but the diagnosis is not positive. There is no advantage in calling an unrecognized case pellagra but it is an advantage to consider every such case as suspicious and to watch it with that idea.

As to the causes, I will not enter the theories, as we have no practical knowledge, but from the symptoms, I do not see how we can doubt that it is an infection or intoxication from some substance introduced into the body. The most probable theory of the poison, so far as we know at the present time, is that corn or maize is responsible. It is worth while speaking of this because of the objections that have been put forward. The chief objection is sentimental and is to the effect that corn is one of our chief products, is one of our assets, and so any theory that corn is responsible should be rejected because of its interference with business. It would be quite as logical to say that we should not suggest that typhoid has resulted from the eating of oysters or even the drinking of water. It is easy to see how little there is in the arguments against the corn theory as the cause of pellagra. Those opposed to the theory point to the fact that although pellagra occurs in countries where corn is largely used as a food, it is rare in America, the home and greatest producer of corn. Corn is used, of course, more or less spasmodically, by many people throughout the United States, but it is not used three times a day as it is in



the southern states where pellagra is now prevalent. In that portion of the country, where pellagra is most found, people have corn in some form on their table three times a day and the same is true in certain Italian provinces and in Roumania. In many places there the people live entirely upon corn, making the cornmeal up into a kind of mush, called by Italians "polenta." They stir the cornmeal with water in a big kettle. It should be stirred about half an hour, but like hasty pudding in this country, often is not stirred so long, and often it is kept for a week, during which time people go to it and help themselves. Under such circumstances it is quite possible for fermentation to occur in the polenta, or mush. One of the first objections to the corn theory was that corn was raised largely in the middle western states, like Iowa, and there, certainly, people had little or no pellagra. But the people who eat corn and have pellagra do not eat corn that is raised in the same country. For example, the Italians who have pellagra do not eat corn from Piedmont, but they get it from Argentine or from this country. Those in Roumania who have pellagra also get their corn from Argentine, and so have a condition of affairs such as we have in this country. Some years ago I heard with skepticism the statements of old people in the South that they never got the kind of cornmeal that they used to get. Formerly they got corn raised in Georgia and ground in the "water mills," but that is now practically abandoned and the only people who get meal ground by the water mills are rich people, or those with a fad, who send back home and have some old neighbor or friend supply them with this meal, but the large majority of people get corn

from the western country that has been ground elsewhere.

Within the last few years some interesting facts have been brought forward in relation to corn selling and corn transportation. Corn is an extremely delicate crop. (I am speaking now of corn used in the form of corn meal.) It has been shown by scientists that corn is the easiest of all cereals to undergo fermentation or to undergo fungous growth. It is a crop especially tending to immaturity in the grain. In barley, for example, the grains are nearly all perfect, but corn has many imperfect grains and such grains are easy to infect with parasitic growth. These things being true, corn being the easiest to infect and to carry infection in it, and the fact that corn is used more as an imported crop than as a home-grown crop, tend to show that corn may have much to do with the production of pellagra.

Then, too, going back to countries like Italy and Roumania, where pellagra is prevalent, we find other conditions that doubtless have much, but not all, to do with the result, e.g., hereditary syphilis and chronic alcoholism are very prevalent. Then, too, the people are extremely poor and have a very insufficient diet. It is easy to say that is just the kind of people we have in this country in the South who have pellagra and get into the asylums. But the condition of the people in Austrian Tyrol, to take a single example, is so much lower than the condition of the poorest in this country that there is absolutely no comparison. They live in a form of poverty that we can form no conception of without seeing it. For example, one of their dietary difficulties is that they have no salt. We have no body of people in this country who are unable to buy enough salt to season their food, and even the very poorest have their salt bacon

which furnishes a certain amount of salt, but some of these Italian people have no salt or meat of any kind. They may never eat meat for many years. Now, if we say that people who are the victims of poverty, chronic alcoholism, syphilis and underfeeding are particularly subject to pellagra, how can we explain why our own people, in whom these causes are not markedly conspicuous, get pellagra? Does it not seem that there must be some other cause, i.e., some poison that comes with the food? Even people who believe in the corn theory believe the poison may be conveyed in other food, but up to the present time it has not been shown that any other food does convey it. There was an epidemic, not due to corn, in France back in the twenties of the last century which appears to have resembled pellagra, but it was probably something else. Among the patients I have seen, all have been asked about the matter of corn and I have had some very interesting experiences. All have a history of eating corn, but all do not give that history at first. Loss of memory is a very common condition in pellagra. In the clinic, over and over again, patients would say that they never ate corn, and then a few minutes later would say: "I told that doctor I never ate corn, but I do eat corn all the time and sometimes it has made me sick." Then there is often a definite history of having eaten spoiled corn and afterward becoming sick. They will remember having had musty corn and that those who ate the corn became sick and some of them got pellagra symptoms. We have seen cases in families where the corn-eaters got pellagra and those not corn eaters did not get it. Dr. Bass reports the case of a woman who ate two pounds of cornstarch every day and who got pellagra. She was a hookworm patient with a per-

verted appetite and had acquired the habit of eating this amount of cornstarch daily. It seems pretty certain according to Neusser, that whiskey made from infected corn has produced pellagra, and I feel willing to believe that such a thing is possible.

I will say only a few words about another possible factor in the production of pellagra, i.e., amoeba, especially amoebae of dysentery. A number of men have tried to show that some kind of amoeba, at least some kind of protozoa, are the causes of pellagra. Most of our cases were examined for amoebae by men quite familiar with amoebae and who had been familiar with these organisms for a good while, and of some twenty-five or thirty cases examined very carefully, not a single one had amoebae, and this was all the more interesting because a large proportion of hospital cases in New Orleans in general have amoebic dysentery. Of all the amoebic dysentery cases I have seen, not one showed distinct pellagra symptoms. But how easy it is to go astray is shown by a reporter who states that a patient who did not have ulcers had a hyperemia of the intestines, a condition so often found at autopsy, so much in contrast to the severe lesions of amoebic dysentery.

In regard to the clinical features, we must recognize the greater severity of cases in this country than those in Europe. One reason for this is that pellagra is a comparatively new disease in this country and therefore much more severe, just as smallpox and similar diseases are more severe in countries where they have been formerly unknown. So it is easy to understand how it may kill people in a few weeks in this country. Some cases, however, are very mild for a long time, and go for four or six, or even ten to twenty-five years, and many cases supposed to be acute may

be merely terminal stages of chronic cases.

The seasonal relation of pellagra is very interesting. Pellagra has remarkable intermissions, and then exacerbations in the spring time. By spring time we mean from the middle of February to May, i.e., beginning about the time when the sun begins to get hotter. But there is another seasonal exacerbation common in some parts of the world that occurs in the fall. Sandwith tells us that in Egypt they have a very marked Fall exacerbation, and he refers to the renewed vegetable growth there. In New Orleans we have the same Fall exacerbation. Cairo and New Orleans have the same average temperature, and there is an increased vegetable growth in both in the Fall. And there as in Egypt, we have the same Fall exacerbation of pellagra. The skin lesions tend to recover in the off season and then burst forth at the time of the seasonal exacerbation. But the skin lesions are of such a great degree of diversity that it is only by seeing a large number of them that one can venture to form some idea of them.

Among the other symptoms, the most striking are the nervous symptoms. They vary from mild apathy or mild exaltations that can scarcely be recognized in the stranger, up to a point of extreme melancholia or dementia. I remember one case in particular, a young woman, the wife of a typical pellagra patient. She was sent for to give the patient's history. She was a country woman without much education, and she described the histories of her mother, sister and husband with an accuracy of detail that I have never seen equalled in any textbook. She had never heard of the disease and had never read of it. She sat with a smile on her face and described the severe diarrhea and the terrible hem-

orrhages from the genitalia of her mother and sister, evidently pleased at the great interest taken by the listening physicians. She was not at all aware of the relationship between those cases and the condition of her husband, or that she herself had the disease. One very marked psychic case was that of a young girl. The girl had symptoms that might have been pellagrous and later became plainly so, but about the time they began she had been thrown out of a buggy and had struck her head, afterward becoming wildly maniacal. She was sent to the hospital and there we found slight changes on the hands but none of us were sure that it was pellagra. She had marked religious delusions, in which suggestion may have played a part. Most of the severe cases have a melancholia that is only moderate. They will cheer up if talked to and can give a pretty clear history, but lapse into silence and apathy if let alone. The gastro-intestinal symptoms are often very striking and very variable. Many patients never show them and many have a very marked condition. Many have stomatitis, such as I have never seen in poisoning, local infection, or scurvy. Sometimes they have that condition apparently in the whole gastro-intestinal tract, from the mouth down, so that they have erosions at the sphincter, and yet at autopsy as a rule they have no ulcerative condition in the intestine. They have usually no stomach symptoms, although they always have diminished or absent hydrochloric acid. They frequently have a characteristic diarrhea, yet on the other hand not so characteristic unless you are thinking of pellagra. The diarrhea reminds one of a nervous diarrhea, without any evidence of catarrh, with large stools, and does not seem to exhaust the patient very much. The important feature about such cases is



that the patients have no explanation for a nervous diarrhea, there is nothing in the dietetic condition to account for a persistent dyspeptic diarrhea, a half dozen to a dozen stools a day, so that when we think of pellagra it may enable us to recognize the condition earlier, but when we consider that these cases occur in a country where diarrhea is very common, it is easy to see how confusing this symptom may be in diagnosis.

The prognosis varies, just as some of the symptoms. Some last for years, some have remarkable improvement without any definite treatment. Sometimes the skin lesions will change so fast that you will not be able to recognize the patient after a few days, so great is the improvement. Sometimes a patient with erythema and desquamation will in a few days have hands looking comparatively well. The severe cases usually die soon. But a remarkable thing about pellagra is the way in which persons who do not seem seriously sick will suddenly die. It has happened to me several times to arrange to show a patient at a ward class or clinic next day and that patient would die during the night. The nurse will say that at eleven o'clock they were apparently comfortable and a little later she found them dead; no struggle, they have simply ceased living. Seeing how variable are the course and symptoms of the disease, you will recognize how difficult it is to determine the effects of treatment. I can only say that I have seen apparent success from the use of arsenic pushed vigorously. The treatment of the skin lesions, the mouth and the gastro-intestinal disturbance must be carried out as in other similar conditions. The results of transfusion employed by my friends, Cold and Winthrop, in Mobile, are promising experiments of that kind, as well as others, which should

be carefully carried out and followed up.

#### Lantern Slide Demonstration.

These slides were made by Dr. Bass, who has made most interesting investigations in many directions, and show about how the skin lesions look in those patients who have skin lesions.

1. This is a picture of a very interesting case. A young woman began to get ill in the spring, and became pale and weak without any apparent cause. Her doctor had no suspicion of pellagra. As she was too weak to walk she was advised to go buggy riding in order to get the fresh air and in a few days she noticed that her hands got red. It is a curious thing that although in pellagra exposure to sunlight has a very striking effect the lesions are different from sunburn. The latter varies greatly in different persons and in the same person at different times, but I have never seen anyone burn as severely as some pellagrous patients will do from short exposure.

This woman would merely ride for a few hours each day, and then her hands began to swell and she took off one of her rings. A few days later she came to Dr. Bass and he had her take off her wedding ring, and one could see the effect of the light upon the exposed portion and the unexposed part. One can see that the erythema extends up the backs of the hands and how the process extends down on the fingers to the terminal phalanges. These lesions, it is necessary to explain, had the appearance of severe sunburn but without so much swelling, the skin in about the condition produced by a mustard plaster being on the dorsal surface. That case was rapidly fatal, although it did not seem very severe when first recognized and was apparently the first attack.

2. These are more severe lesions and older. They show the striking demarcation at the wrist as occurs in practically all. It shows a good deal of thickening of the skin and a certain amount of breaking of the epidermis. In such cases the erythema and desquamation are the interesting features. These lines seem a little sharper than a sunburn. Though these occur in the parts of the body exposed to the sun, it has been shown that in the Roumanian gypsy children who run naked all the time, the condition occurs chiefly on the hands and feet.

3. This is a characteristic case with marked thickening and at the same time one can see the atrophy. The name might lead one to believe the roughened or thickened skin most important, yet the atrophy is fully as important. You can see here the freedom of the palm from involvement.

4. This is the photograph of a negro, a very dark one, yet even in so dark a negro it is easy to see the different kind of black. In this case there was great hypermia in the earlier stages, then much thickening of the skin, much pigmentation and desquamation that was very striking where the dorsal and palmer surfaces met.

5. This shows a case with much more desquamation and shows how, in some cases, the process will extend around on the palmer surfaces of the wrist, although the palm itself is not affected. It does not often affect the skin so severely on the palmer surface as here. This picture is comparatively rare and it is not easily mistaken. On the other hand those were the cases that used to be called septic dermatitis before we recognized them as pellagra. These patients will often explain that they have used some irritating soap or got poisoned with ivy, yet the condition

is easily recognized as different from ivy poisoning.

6. This is from a coal black negro, and shows the thickening of the skin.

7. This shows a very important change in the hands that may not be otherwise clear. When you see such hands in a patient who has any nervous peculiarities or gastro-intestinal disturbances, it is exceedingly important. After we had begun to see that these were pellagrous, it was easy to recognize that they were not syphilitic. Although I have seen many pictures of syphilitic lesions supposed to cause a confusion of diagnosis, I have not seen a case difficult to differentiate. In this case there had evidently been a severe dermatitis and at the edge there is a desquamation rather out of proportion to anything that shows. A thickening like this is often produced by myxoedema but in myxoedema there is no evidence of a previous erythema.

8. These are the sort of hands you frequently see in pellagrous patients who have almost complete remission of symptoms or who, perhaps, have a very mild case going on in such a way that you can hardly speak of it as a remission. All one can see is that there is equally an erythema that cannot be explained by the patient's occupation, there is no history of poisoning by poison ivy or lye, or of severe sunburn. Such cases are quite common in old pellagra countries, such as Italy.

9. This is one of the most interesting pictures I have and from one of the most interesting cases. These photographs are from the hands of a doctor of about thirty, a man who had been very successful, who had lived well, who had no history of previous skin alteration, who found this erythema the day before these pictures were taken. There was slight redness that did not look much like sunburn and there was already a very

distinct atrophy of the skin. He was well nourished, with no senile changes, yet here there was an atrophy that was quite distinct, though it may not be quite so plain in the picture, but in such a man in good health one would not find the tendons show as they do here. He had pellagra with very slight mental changes which afterward followed a more definite course.

10. Here the lesions extend well up on the radial side of the arms, showing at the upper end a marked line of demarcation, but the lesions do not affect the palm. This patient had been lying with the arms exposed to the light in this way.

11. We must not forget that although the lesion occurs on the exposed skin it also occurs in other places. We sometimes find them on the testes. In this case the lesion extends on the back in an area that had not been exposed to the light and that had not been affected by any kind of medicine.

12. This picture shows the lesion on the wrist. The patient at the same time had a slight ulcerative stomatitis on the tip of the tongue, which one can hardly doubt was pellagrous. The tongue does not often show such changes, but there is no reason why it should not.

13. This is a photograph from a very well nourished Irish woman who had pellagra symptoms only six weeks before she died. She had under her breasts two lesions that would strike one ordinarily as intertrigo lesions, but they were out of proportion to the size one would expect, especially in one who has tried to keep her skin healthy, and there was a certain intensity not common in intertrigo.

14. This is the picture of the hookworm case that became pellagrous. She does not look very sick, yet she had this condition to such an extent

that she cultivated the starch-eating habit. I show it rather as a hookworm case without severe symptoms manifest to the ordinary senses.

15. This shows the condition that easily recalls the name pellagra. It is fairly well circumscribed, the palms being clear.

16. This shows a mild case in which only the atrophy shows and that atrophy must always be looked at with due regard to the condition of the skin in other parts of the body.

17. This is the picture of a very severe case, a little idiot boy from the asylum, who had the condition for two years. He had severe lesions on the legs, that looked more like mummies' legs than anything else.

18. This is another severe case on the foot. There had been intense erythema, edema and then big patches rubbed off. Insane patients sometimes rub off large patches in the night and they become exceedingly difficult to care for.

19. This was a case with a branny desquamation that makes it look as if it had been powdered.

20. This is a picture taken of the same little boy before he got pellagra.

21. These are the hands of five children in a family. All these children had pellagra, but they do not all show equally well. You see well the line of demarcation.

22. This is an interesting picture in a good many ways. We get the idea from the literature that pellagra never affects the palmar surfaces and we were puzzled at first by cases with desquamation on the palmar surfaces. But everybody who has seen many cases has seen some with desquamation of the palms. In this case the palms were as severely affected as the dorsal surface ever is. You will see also pellagrous alteration on the elbow. We do not see patients with the necklace that Italian patients get.



Where the latter wear the shirt open they get a lesion on the neck in the form of a necklace with a kind of pendant. All these people of ours wore hats or bonnets that shaded the face and neck as much as they could.

### DISCUSSION.

#### THE PATHOLOGY.

Dr. Carl Warden: Before going into the pathology of pellagra I wish to express my pleasure at hearing Dr. Dock again. It is some sixteen or seventeen years since I was one of his students and though I cannot speak of him as my old teacher, I may say that I am his old student.

There are only one or two points in the pathology of pellagra that I wish to touch upon, and one is the belief of the Italian investigators that moulds are the cause of the disease, either the *aspergillus* or some of the allied cryptogams. It is thought that these moulds give rise to toxins twice a year. Another is the lipodys, which ought probably to have a place in the theories. Bass has found that the Wassermann reaction is often positive in these cases, using lecithin as antigen, but not where he used organiments have been interesting. Labor-extracts. Some of the animal experimental animals have been sickened by spoiled corn. Light exercises a powerful influence and animals with a dark skin do better than those with a light skin, and those sickened with spoiled corn do better in a dark room. Another important point is the influence of serum on laboratory animals. It has been observed that animals poisoned by spoiled corn have recovered when treated with serum from healed and sick pellagras but the control animals died. Diphtheritic and normal sera had no effect.

#### THE SKIN.

Dr. Granville MacGowan: I have been, as all of you must have been, pleased with the very beautiful demonstration of pellagra. Dr. Dock

has had very extraordinary opportunity to study the disease and what he may say must be of great value. But so far as the skin is concerned, it has about the same relationship as in leprosy. The lesion of the skin is one of the manifestations, is one of the symptoms, of the disease. Because a man has an erythema on his hands, do not jump to the conclusion that he has pellagra. You have more than that in pellagra, you have some poison to deal with, probably one in the nature of strychnia, and one that disturbs the motor and cerebral functions. The skin lesions are secondary. You have the picture of a man suffering from spinal symptoms first of an irritative nature, succeeded by paratic symptoms. This individual has diarrhea more or less marked. He may have in addition to this, ptialism, which has been so beautifully described by Dr. Dock; he has, still further, an excitement of his brain with a tendency to hallucinations and with a marked depression and melancholia, and then an erythema occurring on those portions where the sun's rays have come in contact with the body, or secondarily, on any other portion of the body, as on the back, or legs, or feet. The doctor has told us that in Egypt it occurs on the backs of the hands, as it does here, but it does occur on all other parts of the body, but is more marked on the hands. It may occur on the olecranon, as he has just shown you. Sometimes the erythema is mixed with vesicles. When the skin is broken it becomes infected. When that erythematous condition accompanies all the other conditions, then you have a case of pellagra, and not until then. That is not always easy to tell. I have seen a few cases at the clinic in Vienna. In three years I saw some six or seven cases from Roumania, Austria and Hungary. You have to make your diag-

nosis from a simple erythema, which itches intensely and which does not scale like pellagra. You have to make your diagnosis from syphilis, from leprosy and from the ordinary roughened sunburned hands of individuals working in the earth or with substances that irritate the hands. But where the case is well marked it is easy enough to make the diagnosis if you have some familiarity with skin diseases, otherwise it is rather difficult.

#### THE NERVOUS SYSTEM.

Dr. H. G. Brainerd: The statement that the lesions affecting the skin are first irritative and then destructive applies very well to the nervous system. The type of mental trouble which is found is that of depression, an apathetic type. In the early stages you may find more active manifestations, as shown by delusions or ideas of a distressing nature. Later they all tend to apathy. It is an apathetic condition rather than an acute melancholia. They soon settle down into dementia. I thought originally that all cases became demented but when I considered the source, i.e.,

from the asylums of the southern states and Peoria, I found that many of these patients must have been demented long before they became infected with pellagra. Often the conditions found at post mortem are like that in paresis. The changes in the cord are less pronounced than in the brain. The reflexes are likely to be heightened at first, later they are lost, e.g., the plantar reflex. The patients have a weakened gait. Of the one hundred and twenty-five cases in the Peoria asylum, all but seven presented some form of dementia. Six were manic-depressive, the other was paranoia. I think we may safely say that the form of mental disturbance is first depression and then apathy. About only ten per cent. of the Italian patients become insane, and a number of others suicidal, many suicidal by the water route. I wish Dr. Dock would tell us whether these patients outside the asylums became demented.

Dr. Dock, in closing: Most of these patients did have some degree of dementia. Often it was very mild and often it was difficult to recognize.

## STERILIZED SPINAL FLUID SUBCUTANEOUSLY REINJECTED FOR TUBERCULAR MENINGITIS.\*

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The following case occurred in the practice of Dr. Leo Blass, and I am indebted to him for the privilege of seeing the case and also for his observations which follow, previous to the time of admission into the Kaspale Cohn Hospital.

"Was called in Thursday at six o'clock, p.m., to see child. Girl, aged 4. Mother gives following history:

Father perfectly well; mother has been in Denver National Hospital. Eight children born, five dead. One child died of Tubercular Meningitis, others from unknown causes. Child had been at home for two or three hours suffering with stomach and bowel disturbances, and vomited everything she took. Child sick for ten days previously, mother called it cold; she did nothing at all. Child has some

\*Read before the Medical Symposium Society of Los Angeles, March 30, 1911.

temperature and coughed all the time. I examined the baby and found temperature 101, pulse 95, inflammation of the tonsils and severe bronchitis, bowels distended with gas; no other symptoms.

"Friday.—Temperature drops down to 99½, bronchial rales less, and inflammation of the throat subsided. Child sitting up, playing all the time and taking some nourishment.

Saturday, A.M.—Called upon child again and found temperature normal but child complaining of headaches; coughing more than the day before, some bronchial rales, slight dullness. Mother called my attention to the headaches. Found pupils normal, reflexes normal and no stiffness of the neck.

Sunday, A.M.—Examined child again, found temperature normal, sitting up playing and the headache gone. Lungs, same findings as previously. I told mother to call me if necessary, but she did not until Monday. Monday, 1 P.M.—Mother said child was evidently in good health during forenoon. Suddenly eyes became crossed and she lost consciousness for one second. I found temperature now 102, and stiffness of the neck."

"I saw the case in consultation with Dr. Blass at five o'clock, Monday, p.m., and found the following: Girl, four years old, well-developed and nourished; face flushed, head retracted, stiffness of neck muscles, pupils dilated, equal; no reaction to light, internal strabismus of left eye. Child conscious, objects to being moved; respiration labored, about 40 per minute.

Lungs—:Dullness over upper lobe of left lung, increased breath sounds, bronchial in character, few sub-crepitant rales over apex and just below clavicle. Right lung hyperresonant, harsh breath sounds, no rales; abdo-

men tympanitic, slightly distended, otherwise negative.

Heart—:Rate 100, pulse equal, good volume, tension, and pressure slightly increased. (judged from feel of arterial wall under the finger.)

Heart Sounds—:First sound at apex, booming in character, no murmur; second sound at base, accentuated over pulmonic area, basal systolic murmur. Patella reflex absent, Babsinski reflex absent, Oppenheim reflex present. Marked tenderness on pressure over tibia; Koenig's sign present, temperature 103.

"We decided that from findings child was suffering from pneumonia, probably tubercular, with meningeal complications and it was taken to the Kaspare Cohn Hospital.

On admission the temperature was 103, pulse 100, respirations 40, labored. Right cheek flushed, coughs, no sputum obtained. Ordered hot mustard packs every four hours.

Jan. 17.—Patient dull, hard to arouse. Strabismus of both eyes. Lumbar Puncture, 30c.c. clear fluid obtained, fluid spurts out. Examination of fluid shows increase in lymphocytes, tubercle bacilli present and some few diplococci.

Jan. 18.—Examination of Eye Grounds by Dr. Frank Miller, shows: "Nerve heads normal; no retinitis but retina looks oedematous, particularly at periphery." Twitching of left arm and leg. Strabismus and coma more marked. Lumbar puncture—10c.c. clear fluid withdrawn, fluid escapes under pressure. Following puncture twitching ceased.

Jan. 19, 12M.—Clonic contractions of left arm and leg, gritting of teeth, strabismus, twitching of both sides of face and eye lids, jerking of arm resembling Jacksonian epilepsy, spasm of jaw muscles, difficulty in swallowing. Lumbar puncture 30c.c. clear fluid obtained; slight amelioration of



symptoms following withdrawal of fluid.

1 P.M.—Was called from other part of hospital. Found—Right side of body twitching; right arm and leg in clonic spasms, and all other symptoms of one hour before aggravated.

Lumbar Puncture.—Fluid spurts out in constant stream immediately after introduction of needle, the stream remaining about one inch above top of needle for some seconds and then gradually retards to drop by drop. It was interesting to note during this operation, the effect of the heart pulsation on the column of fluid as the pressure was gradually relieved. 50c.c. clear fluid were withdrawn, making 80c.c. within an hour. The effect of this puncture was most marked. The spasm of arm and leg ceased immediately, the facial twitching was last to subside. The eyes straightened. No effect was noticed on pupils which remained equally dilated and did not react to light.

Jan. 20.—Moves legs and left arm voluntarily. Slight attack of hic-cough. No strabismus but rolls eyes from side to side. Tickling sole of right foot causes left foot and leg to be drawn up; no response from right foot. Can extend left leg fully on thigh. Koenig more marked on right than on left side. Pressure on tibialis Anticus of right leg causes Openheim reflex and drawing up of left leg; right leg remaining quiet.

At 5:45 p.m., eyes suddenly become set, pulse and respiration almost imperceptible. Applied external heat, Hypo of Camphorated Oil and Ether equal parts, Amyl Nitrate Inhalation to which she responded. 10c.c. Fluid obtained by puncture.

Jan. 21.—Twitching of left arm and leg began at 1 a.m., which gradually increased toward morning. Slight grinding of teeth, sneezed three times with slight nasal discharge, which was

blood streaked. Examination of throat by Dr. S. W. Hastings shows nothing abnormal. Lumbar Puncture.—35c.c. clear fluid withdrawn under pressure.

Jan. 21.—Restless—moves left hand, right leg rigid. Does not swallow. Pulse rapid. Respiration shallow. Twitching of left corner of mouth. 40c.c. fluid obtained under pressure.

Jan. 22.—Lumbar Puncture.—17 c. c. clear fluid. Twitching ceased. Arms and legs move voluntarily. Later in afternoon both hands clenched. Thumb drawn into palm of hand.

Jan. 23.—Condition remains practically unchanged. Lumbar Puncture.—25c.c. clear fluid obtained under pressure. Fluid spurts about one foot from needle top and continues to run under pressure for some few seconds. Examination of this fluid shows increase of large mono nuclear leucocytes of large mono demonstrated in some of these cells. Following puncture patient remains rather listless and quiet all day. Toward evening pulse almost imperceptible; respiration Cheyne Stokes in type; heart sounds very indistinct, rythm foetal. Lumbar Puncture, 45c.c. clear fluid withdrawn. Immediately after puncture pulse much stronger, 98. Rythm normal, heart sounds louder. Booming systolic murmur over apex. Respiration regular, full and deep, less rigidity.

Jan. 24.—Body rigid, right hand clenched, thumb to palm and adducted. Constant twitching of left hand and arm; pulse imperceptible at apex, 148+. Lumbar Puncture.—55c.c. clear fluid obtained under great pressure. Fluid does not reduce Fehlings Solution. Pulse stronger after puncture, body still rigid but twitchings have ceased.

7 P.M.—Convulsion of face and clonic contraction of left arm and leg, slight frothing at mouth. Lumbar puncture. 45c.c. clear fluid with-

drawn. Flow rapid; pressure not marked. Left side of body relaxed after puncture. 5c.c. Spinal fluid sterilized at 60 degrees C., one hour and injected subcutaneously. No change in condition observed.

Jan. 25.—Pulse weak and rapid. Arms extended. Hands in position resembling "Main En Graiffe"—legs extended and rigid feet; markedly adducted. Babinsky pronounced. Gurgling in throat; swab introduced into Pharynx and specimen of mucous obtained and examined. Tubercle bacilli demonstrated.

Respiration four per minute for several hours, pulse imperceptible; marked cyanosis. Patient finally succumbed.

The clinical history of this case is given somewhat at length, not that it varies much in its course from other cases of Tuberculous Meningitis, but rather to bring out certain features which I consider sufficiently important to discuss at length.

The question of lumbar puncture has been discussed pro and con by various writers since its introduction by Quinke, in 1891. There are some who still deny its efficiency in the treatment of meningeal disease, but these now belong to the minority of observers. As a means of diagnosis whether in brain tumor or Meningitis, it must be conceded that its value is indisputable. The only question which presents itself in the former condition, however, is, How much fluid can be withdrawn with safety? It is not the purpose of this report to enter into the discussion of this point.

In the latter condition, namely, Meningitis, lumbar puncture has proven a valuable adjunct both from a diagnostic and therapeutic standpoint. The quantity of fluid withdrawn in this case varied as the symptoms presented. When these were most marked, i. e., convulsions, facial spasm, and

spasm of the jaw muscles, the fluid was markedly increased and escaped under great pressure. The Jacksonian symptoms subsided immediately as soon as the pressure was relieved, showing that they were produced by increased intracranial pressure, while the twitchings of eyes, eye lids, face and spasm of jaw muscles were in all probability due to basal irritation rather than to an increase in pressure. 55c.c. of spinal fluid were withdrawn at one time and 45c.c. 12 hours later making a total of 100c.c. 80c.c. were obtained from two punctures within an hour, and on several other occasions two punctures were done within 24 hours, without any evidence of untoward effects from the puncture, *per se*.

The guide to the amount of fluid withdrawn was the condition of the patient, the effect on the symptoms, and the rapidity of the flow. The fluid was caught in sterile tubes and the quantity measured from time to time.

Various writers have recorded quantities ranging from 20c.c. to 100c.c. the larger amount being used as a therapeutic measure. Dr. J. F. Hultgen withdrew 100c.c. at an initial puncture and 60c.c. three weeks later, with recovery of patient, lumbar puncture being the only therapeutic measure used. Von Bergmann Bruns, Surgery, says that in some cases it was necessary to remove 200 c.c. of fluid in order to relieve pressure symptoms, but does not mention any specific cases.

In this case, 387c.c. were removed in all. Lumbar puncture was performed 12 times. For effect of puncture on pulse, temperature and respiration, see accompanying chart.

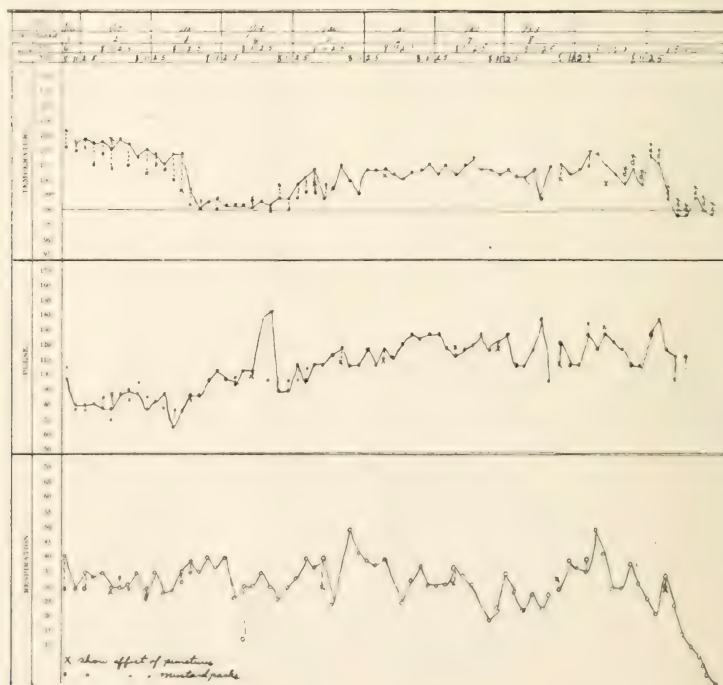
Recent work on the treatment of pleural effusions and ascites by the subcutaneous re-injection of the fluids obtained from the body cavi-

ties, suggested the possibility of some benefit to be derived from the re-injection of the spinal fluid in these cases.

When one considers the chemical composition of the cerebrospinal fluid with its low albumin content, a minimum of sediment, its slight coagulative ability, it presents rather an ideal base for the formation of a menstrum in which to carry microorganisms which can be killed by sterilization, and immediately reinjected, upon the theory that one is using autogenous vaccine, providing that the tubercle bacillus has been demonstrated. In this case 5c.c. of this fluid was put through this process and reinjected, but unfortunately, so late in the course of the disease that no observation on its effect on the process could be noted. It seems to me that in a disease with such an high mortality, with nothing at our command with which to combat its

progress or aid in the formation of anti bodies, such a procedure should receive serious consideration, and I regret the inability to carry this thought further by animal experimentation in order to prove or disprove its efficiency.

In considering the cyto diagnosis in this case, it was interesting to note that in the first specimen obtained and examined, the Lymphocytes (small) predominated. At the second examination it was seen that although the Lymphocytes still predominated the type had changed from the small Lymphocytes to the mononuclear type of Leucocyte. Generally the Polymorphonuclear leucocyte is considered as the only true phagocyte, but here were mononuclear cells, which had shown phagocytic properties and had ingested tubercle cells, within their protoplasm. In working out the Opsonic indices on tubercular cases, it was noticed by





the writer that certain of the large mono nuclear leucocytes had taken up either one or two tubercle bacilli. The constance of their proportionate increase in the blood in all tuberculous infections must be of more than ordinary significance. The importance of this fact requires further thought. L. Von Krehl says: "Minkowski and Strauss mention numerous conditions in which there is a predominating lymphocytosis. I believe that these processes present a wider field for study than that with which they have previously been credited. In this connection the increase of lympho-

cytes which for example, is found in the tuberculous exudate, in the spinal fluid of chronic meningitis, present possibilities for further research of the mono nuclear leucocytes and may be the means of other important discoveries."

With this object in view these few observations are presented to you with the hope that they may reach some who are working along these lines and whose equipment better enables them to follow to a successful termination the principles involved in this study.

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## PELVIC FINDINGS IN THE FEMALE INSANE, WITH RESULTS FOLLOWING TREATMENT.\*

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The introduction of this subject this evening means a resurrection of a discussion which occupied the attention of many gynaecologists and a few alienists some few years ago, and, if I may presume to express my convictions, a subject that has not yet received at the hands of our profession the consideration which it merits.

Two years ago, while visiting the museum of the Royal College of Surgeons in Edinburgh, I was much interested in reading the label upon a jar containing a large uterine fibroid, which ran: "This was taken from a woman who died from softening of the brain." This reminded me of another case of "softening of the brain" that I examined in a Canadian asylum, finding a tumor of similar nature, of which not even the asylum physicians had any knowledge. Six weeks after a sub-total hysterectomy, she left the asylum for her home, where she has remained twelve years, not wholly normal, but contributing to the domestic welfare, instead of,

as before, being detrimental to it.

Now it is not my purpose to either infer or conclude from one case. Dr. Will Mayo says, "Draw your conclusions before you have many cases, for as your experiences enlarge your conclusions will be less definite." Fifteen years ago, with the experience of two cases of insanity, both given up by asylum physicians as incurable, and both responding to the applications of the surgeon's knife, with rapid and complete return to normal mental health, I dreamed of medical idealism and spoke in terms of enthusiasm and assurance so characteristic of those who claim an insight into the obscurities of life, clearer than that of their fellows. Today after a greater experience, and wider range of reading and reflection, I speak more conservatively and I hope more reasonably, not that there has been one step of retreat from the position originally taken, viz: that the presence of mental abnormality is no excuse for the neglect of physical examination, nor the

\*Read before the San Bernardino County Medical Society at Redlands, Cal.

treatment of physical disease, but the prognastic element has become considerably modified.

In listening to this paper, do me the justice to admit that it is not the writer's thought that a woman's mind resides in the pelvis, and is conditioned solely by the functioning of its contents, nor that there are not other causes of mental abnormality than those found in the abdomen. Insanity being as Clouston states, the product of heredity and strain—or possibly more clearly expressed as the *product of strain plus the physis* sum of the physical abnormalities, the pelvic disease may be but one of the physical factors which contributed towards that strain, but however small that factor, it may be that which turns the balance from the normal to the abnormal mentality. Upon these matters we can speak but feebly and relatively, expressing too often our ignorance rather than our knowledge.

Allow me to state at the outset that I am not unmindful of the functional derangements of the sexual system, accompanied with, and dependent upon, the lowered vitality and alteration of metabolism, which is evident in not a few cases of insanity, but that is not a part of the question under discussion.

As to the first division of the subject—the pelvic findings in the female insane—we may at once clash in regard to what constitutes the abnormal. Allow me here to state that superficial lacerations without erosion and versions without adhesions are not considered abnormal, and as a pupil of Price, Kelly, and August Martin, I find no necessity for including in the pathological list, conditions not considered by these masters as abnormal.

1. As to results of examinations: In the examination of 154 women with well marked mental aberration I have found 88 per cent. with well marked

pelvic lesions. I do not presume to state that 88 per cent. of our female insane require gynaecological treatment, but I do say that 88 per cent. of those who have come under my observation required pelvic treatment. Of the 154 examined, 130 were married and 24 single. Of the married 118 were diseased; of the single, 19.

In a Canadian asylum, in which I had extended to me the courtesy of examining an unselected number of inmates, I found that out of 31, all but two showed well marked pelvic disease. The conditions found in these cases were: Fibroid, 2; deep laceration of cervix, 15; perineal lacerations, 10; enlarged and cystic ovaries, 10; retroversion with adhesions, 5; conical cervix and pinholes, 2; myometritis, 4; erosion of cervix, 2. In no case was there present any distinct indications of degeneracy, asymmetry of features, high arched palate, irregular ears, defects of speech, deafness, chorea, wavering eyes, nor twitching of the facial muscles.

Nor are these statistics unique. Dr. McGuigan, of Kalamazoo Asylum, states: That of the female inmates examined less than 10 per cent. have normal pelvic organs.

Pique quoted by McNaughton Jones found 88 per cent. of gynaecologic affection among the insane.

Now as to results of treatment, treatment not for insanity, but for the removal of the pelvic lesions: 71 were submitted to operation, with the result of physical recovery in all but 4, and mental recovery in 28, or 39 per cent., and additional 22, 30 per cent., were improved mentally, 17 not improved, and one not heard from. With a more careful elimination of organic brain disease, and greater operative dexterity, the operation mortality should be lessened.

In my earlier series of cases I had four deaths. In two cases the patients died from central conditions

which were present previous to the pelvic operation, but undetected. One from post operative pelvic abscess, and one from obstruction in ilium. These patients bear operative procedures as well as our ordinary cases. In no case was the mental trouble increased by the operative treatment.

In the evolution of gynaecology we have passed through several stages and today we are in the stage of the most extreme conservatism with regard to normal structures, and the most extreme radicalism in the presence of structures hopelessly diseased, and nowhere do these principles apply with greater aptitude than in the department we are now discussing: normal ovaries or uteri are as sacred here as in those whose minds are not affected. The day of mutilation is past, but I here stop to make one exception—recognizing the hereditary factor in the causation of insanity, it is my practice after obtaining the consent of the husband or friends, to remove the tubes, cutting a V-shaped piece out of the uterine horns. I consider the eliminations of this potential of insanity justifiable. With this one exception pelvic conditions in the insane are to be treated as in the sane. Of course, I refer only to major gynaecology, as minor treatment, electricity, applications and pessaries are not to be considered in the vast majority of these cases.

But some will ask, are the functions of the pelvic organs more closely related to the psychic activity than are other organs of the body?

Your physiologists will answer that question. Let me reinforce that answer by stating that one of my cases of removal of a moderately large ovarian cyst complicated with adhesions who had been unbalanced for seven months, was practically sane when she recovered from the anaesthetic.

Dr. Hobbs, late of London Asylum, gave records of 32 cases of general surgery done upon the insane, including such operations as hernia, tumors, depressions of the skull, appendicitis, and excision of joints.

In all these, although physical relief resulting therefrom, there was no mental relief following the operations but in 111 insane patients suffering from pelvic disease, representing curettings, 38 trachelorrhaphies and amputation of the cervix, 26 suspensions, 12 ovariectomies, 17 hysterectomies, 2 laparatomies for tubercular peritonitis, 1 removal of broad ligament haematoma, and 17 perineorrhaphies, with the following results: 40, or over 36 per cent., were restored mentally; 32, or 29 per cent., showed improvement in the mental condition, while in 35, or 32 per cent., no mental improvement followed; 3, or less than 3 per cent., died. Dr. Hobbs states that a number of those operated upon would have died had it not been for the timely assistance given by surgery. Read Byron Robinson on the abdominal brain for further proof, or consult your own psycho-sexual system.

Now for a few corroborations. I have in my hand a letter from Dr. J. H. Kellogg, of Battle Creek, Michigan, who in reply to my request for any experience of his in this domain, writes: "I have yours of recent date. I recall only three cases; one that of a woman who suffered from melancholia and had severe endometritis, treatment for the pelvic disease resulted in a cure. Her treatment consisted of massage, regulation of the diet, etc., which unquestionably improved her general health, aside from what beneficial influence may have been exerted by the treatment of the pelvic disorder.

"A second case, that of a young woman who suffered from periodical



hystero-epilepsy, was cured by ovariectomy.

"A third case, a woman who was insane, having illusions and frequent attacks of maniacal excitement, was cured by hysterectomy, the indication for which was the existence of a fibroid tumor of moderate size.

Another letter from Dr. Manton of Detroit, who states, "I have been operating upon insane women during the past ten or twelve years, and I should judge have operated from ten to twenty times each year, in many instances doing several operations upon the same patient. These operations have included most if not all of the major as well as the minor abdominal and pelvic procedures. During this period I have lost by death only two patients, one from hemorrhage following extensive vaginal operation, and one from the opening of the abdominal wound by the patient, with escape of portions of the intestines followed by peritonitis.

"In scarcely a case operated upon has there been a failure as regards improvement of physical health, with in very many instances, accompanying alleviation in some degree of mental condition.

"There have also been a great number of "cures" mentally speaking following operations, but this relief to the brain disorder I attribute as much to other factors as to the operation."

Dr. McGuigan of Kalamazoo (before quoted) states that mental cases require little mental treatment, he says that surgical relief is indicated when we have abnormal conditions present, and that recovery is usually blocked to a serious extent by physical conditions only.

Rohe, late of Maryland State Hospital, favored surgical procedures in cases of pelvic disease, and reported out of 34 cases operated upon 14 mental recoveries and 5 improved. Mc-

Naughton Jones, late president of Bt. Gynaecologic Society states. "The co-relation of insanity and disordered sexual functions of the generative organs is a factor to be taken into serious consideration in the treatment of the mentally afflicted."

Sir Halliday Croom of Edinburgh, and Elzholz of Vienna, have reported cases of insanity recovering after the removal of the cystic ovaries.

Horman, Physician of Pittsburg Insane Hospital, speaking of the proven work done along this line by Rohe, Manton and Price, says: "I feel that they have opened up a new field for the gynaecologist and established the beginning of a new era for the alienist." He goes on further to state that we should be more concerned about our patients especially of the neurotic type, who are suffering from uterine disease. Many times, if the uterine disturbances were relieved the insanity would be removed. I cannot do better than to give a paragraph from one of his articles."

"No fact has been more clearly established by psychologic investigation and neurologic anatomy than that the human anatomy is wholly dominated by the sympathetic nervous system. The whole physical structure is subservient to its influence. It is a despotic force with compulsory requirements. There is no stasis, either active or passive, no modification of the activities, no irritation, however slight, but will manifest itself through the sympathetic nervous system. I have seen, as already stated, in the treatment of insanities the result of uterine disease, the local or surgical treatment of the trouble not only cure the uterine disease, but effectually cure the concomitant disease occurring in the brain, thus showing the mysterious (?) and unaccountable (?) connection between them. A woman becomes the victim of nymphomania,

amenorrhea, dysmenorrhea, or some one or more of the many forms of uterine disturbances; it may take on one of the amatory phenomena, especially of nymphomania, a religious turn, devotional enthusiasm of so violent a character as to necessitate a removal to a lunatic asylum—and these are not fictitious cases—and all this because of local irritation. Finally, we may have a uterine trouble, an irritation, transmitting through the hypogastric, spermatic and other ganglia and plexuses, from cell to ganglion, passing onward to the sacral, to the cord, the medulla oblongata and cerebellar and cerebral ganglia, finally by coronata radiate fibres to the cortex of the brain, that most valuable distribution of nervous matter, the seat of mentality and intellectuality, ending in a complete over-throw of the noblest propensity of woman, driving her to a mad house, there to drag out her existence within the walls of her life prison. Thus, we have the beginning and end of a very sad picture."

Dr. C. A. Kirkley of Toledo says, in speaking in favor of operative treatment in the female insane. "The future of gynaecology in this field is full of promise."

With regard to insanity we have passed from the theory of diabolical possession through mental to physical disease, and for a time the attention centered upon the brain, then the pelvis, and now we recognize that wherever there is sufficient irritation from functional derangement or structural disease, intestinal toxemia or meningeal inflammation, there we may find the exciting cause of "mental disease."

The hypothetical basis of alienists, and the classifications based upon external manifestations, need but a momentary consideration, neither need

we trouble ourselves with vexatious queries as to mental and physical relationship, interdependence, or unsolved psychological problems. But when the rudder chains of life are weakening, and the frail craft no longer obeys the will, our duty is immediate action, knowing that the standard of tissue-integrity has been lowered, and that the abnormal mentality is but the erratic effort of irritated or poison-laden organs to discharge their functions? A large majority of these cases respond readily, and the sooner the case receives treatment, the better are the results. No case should be given into the care of the state hospital, or worse still, confined to gaol awaiting the action of the authorities until every diagnostic means has been used, and reasonable therapeutic attempts made. To exercise as much care in the treatment of incipient insanity as in a given case of typhoid fever, would be to very largely diminish our asylum commitments.

When, as so often has occurred in the writer's experience, suicidal mania of several years' duration has vanished after the removal of an adherent ovarian cyst, when acute mania, hopelessly "incurable" is restored immediately upon convalescing after removal of adherent appendages; acute mania, certified by two physicians for asylum commitment, instantly relieved by the extraction of an ulcerated tooth, and delusional insanity, case after case restored to health after the removal of pelvic pathology, is there not encouragement for the physician to consider carefully whether or not he has discharged his full duty to the sufferer, if he has failed to interrogate any organ or function to the fullest extent of his power. The development of mental symptoms should not define the limits of our jurisdiction, but on the contrary should be a

call to more careful examination and closer scrutiny.

Now gentlemen, this is the condition regarding our female insane as it has appeared to one with somewhat limited opportunities for observation during the last fifteen years. My conclusions are before you for consideration and criticism. If there be a measure of truth therein contained, or if, in your judgment a heavy discount must be imposed, and instead of 83 per cent. of our female insane suffering from conditions which can easily be rectified, we admit 44 per cent. or even 22 per cent. amenable to treatment, and if your state hospitals make no adequate provision for such treatment, is it not a matter that should demand the consideration of the profession?

As to the best methods of administration in this state, it would be presumption for a new comer to suggest, but I make bold to say that the entrance of the gynaecologist into the state hospitals would mark an era of therapeutic progress. And while I plead for this specialty, I plead for the general surgeon, the physician and for the specialist in nervous diseases. The state hospital should have a consulting staff of specialists who could meet at stated intervals and examine all inmates. This long neglected department of medicine invites us to exercise our best efforts. The alarming increase of insanity demands this; our duty to our patients and our interests in the welfare of humanity encourage us. What shall be the voice of this society regarding this most important matter?

In conclusion I may state that the results herein stated are the privilege of and can be duplicated by many of the excellently qualified men before

me this evening who realize the possibilities in this department, and it appears to me that it is incumbent upon us all to leave no stone unturned in investigation, nor no measure of relief neglected. Now let me repeat that I do not say that insanity in women depends upon disease of the pelvic organs, but I do say that many cases recover their mental grasp after such disease has been removed. Neither do I recommend surgical measures indiscriminately, but one thing I do believe and shall advocate so long as there are additional worlds of conservatism to conquer, that the principles of surgery and humanity unite in demanding that the insane receive at least the measure of consideration that their diseases call for, that these helpless sufferers from pelvic disease who are confined in our asylums have extended to them the benefits of modern treatment, that asylum life be no barrier to the application of modern therapeutics, and that our female insane receive treatment equally as skillful as that given in daily practice by hundreds of our best physicians. If this be done a large per cent. of your asylum population can be sent to their homes, households united, and given "beauty for ashes, the oil of joy for mourning, and a garment of praise for the spirit of heaviness;" this is no idle dream, no strain of the imagination; what has been done elsewhere can be done here.

Then what can we do when confronted with a patient giving evidence of abnormal mentality? Remove obstructions, repair structures, restore functions, and thus extend to this invalid class the measure of mercy than an enlightened sentiment desires and the spirit of justice demands.

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## HISTORY OF MEDICINE—HIPPOCRATEAN PERIOD.

BY BERTNARD SMITH, M. D., OF LOS ANGELES, CAL.

Hippocrates, the father of rational medicine, was born in the island of Cos, Greece, in the year 460 B. C. He was the son of Heraclides, who was the seventeenth son of Aesculapius, and Phaenarati, who was supposed to have been a mid-wife and a descendant of Hercules. From such famous ancestry and influenced by the immediate environment of his birth place, it is only natural that his thought and study should be directed towards medicine. His own natural keenness of observation and logical reasoning were further developed by his early extensive travels through Greece and Asia Minor for purposes of study in the various sanatoria and gymnasiae. The later years of his life were spent at Larissa, the capital of Thessaly, where he died at an advanced age; Clinton, the historian, states at the age of 104. He lived in the most brilliant Grecian period in literature, philosophy, poetry and fine arts, and had as his contemporaries such men as Pericles, the famous statesman; the poets Aeschylus, Sophocles, Euripides, Aristophanes and Pindar; the philosopher, Socrates, with his disciples—Plato and Xenophon, the venerable father of history, Herodotus, and his young rival Thucydides.

The period of his life marks the dawn of rational medicine and the birth of the sect known as the Hippocratean or Dogmatic School, which professed to set out with certain theoretical principles, derived from the generalization of facts and observations, and to make these principles the basis of practice. The Dogmatists, sometimes called Rationalists, were distinguished from the Methodists, founded by Aesculapius and Themison, and the Empirics, a sect

who occupied themselves chiefly with a study of the properties of drugs.

A better spirit in professional work and service is today, our inheritance from Hippocrates' time, "Life is short, art long, occasion brief, experience fallacious, judgment difficult. It is required that the physician exhibit what is essential, and that the patient, attendants and all which surround him, concur therein." The Hippocratic oath, demanded of all his disciples, is marked testimony of the high ethical and moral standard he considered necessary in the practice of medicine. Besides this exalted idea of medicine, its extent, aim and difficulties, his great regard for medical dignity and lively feeling of the duties and obligations of his profession, Hippocrates had a deep aversion to those who in any way compromise it, either by quackery or immorality.

Previous to the time of Hippocrates, medicine had been closely associated with religious rites and superstitions. During this period medicine was put on a sane basis through the advocacy of natural causes for diseases and of treatment along rational lines, avoiding the supernatural and superstitious. He advocated that accurate observation should be the foundation of all medical knowledge and believed that the chief art of a physician consisted in watching the operations of nature and in managing them. "Our natures are the physicians of our diseases" and also "The art of medicine consists in the restoration of that harmony in the condition of health the derangement of which constitutes the essence of the disease."

The works of Hippocrates, which practically all authorities credit to him are: "The Prognostics," "The Aphorisms," "The Epidemics," "On

Regimen in Acute Diseases," "On Airs, Waters and Places," "On the Articulations," "On Fractures," and "The Mochlic," a work on instruments of reduction. The most philosophical and that which shows the most extended observation, travel and study, is "On Airs, Waters and Places." In it he inquires into the effects of the seasons, winds, various kinds of waters, localities, the nature of soils, modes of life and exercises. The influence of each of these on health and the necessity of the physician making himself acquainted with all these matters. He points out the influences of climates and the diseases depending on differences in them.

To his writings may be traced the classification of diseases into internal, or medical, and external or surgical. Also for the classification of sporadic, epidemic and endemic forms and for the division of diseases into acute and chronic. As to the causes of diseases, these are divided into two classes:—

1st. Influence of seasons, climates, water, situation, etc., and

2nd. Personal causes, as food, immediate environment, habitation and habits of patient. He believed all disease was caused by an excess of one of four elements: heat, cold, dryness and moisture, and that this excess brought about changes in one or more of the four fluids of the body: blood, phlegm, yellow bile and black bile, which were the primary seats of disease. His treatment, aiming at the restoration of the healthy balance between these four fluids, is theoretically spoken of as crudity, coction and crisis—crudity, as the degeneration of the fluid which is in excess and causing symptoms; coction, the preparation for the evacuation of the fluid in excess by bowel, mouth, kidneys or skin; and crisis, the final evacuation, which restores the health by re-establishing the normal balance.

Hippocrates' knowledge of human anatomy was very crude and could not advance because of the deep religious respect for the dead then held throughout Greece, which prevented the study and dissection of the human body. He did make some study of anatomy by dissecting animals, but still we find his idea of veins and arteries was confused and that he considered nerves, tendons, ligaments and membranes as analogous or interchangeable tissues. He states that the ear is only to transmit sound to the brain where it is interpreted, and in another place describes the brain as a gland. Some idea of osteology existed but knowledge of the structure of the body was superficial and erroneous. Consequently it is not to be wondered at that the statements in the writings pertaining to physiology and pathology are very crude and incorrect.

Many of the "Aphorisms" written by Hippocrates were to serve as a guide in prognosis. "The best physician is one who is able to establish a prognosis penetrating and exposing first of all at the bedside the present, the past and the future of his patients, and adding what they omit in their statements. He can, also, so much better treat their present condition in proportion as he shall be able from it to see the future."

In treatment Hippocrates and his followers were expectant. Treatment consisting chiefly and often solely in attention to diet and regimen. He undoubtedly understood the wonderful resources of nature and knew that many diseases generally get well without any treatment, being self-limited. In such cases he relied on diet, hygienic rules and good nursing, methods that have hardly been improved in the two thousand years since his death.

To Hippocrates belongs the credit of combining medicine and surgery

more closely, for it was his firm conviction that the surgeon can only judge safely and correctly of the state of his patient when he is at the same time a physician. He left in his writings a description of the application and uses of massage and shows he was acquainted with the ordinary means of counter irritation. He seems to have performed some capital operations with boldness and success and reduced dislocations and set fractures, although done clumsily and cruelly. He extracted the fetus with forceps when necessary and both used and abused the trepan. Ruptures, piles, polypi, fistula in ano and prolapsus ani were among the conditions treated. Emphysema was understood and treated by intercostal incision or by partial resection and considerable stress laid on the importance of maintaining free drainage. Hippocrates did not perform lithotomy, although this seems to have been practiced by other men of his time.

In "The Mochlic" he describes a surgeon's room, its lighting, the instruments and appliances used, duties of assistants, accommodations of patients, position of operator, use of hands, of water, of bandages and of sounds, made of tin and lead. A full account of wounds and their treatment is given. The treatment of hemorrhage by cold compression and styptics is discussed and cataplasms and cold and warm plasters are described.

The influence of Hippocrates was so great that no attempt was made for some centuries to improve upon his views and precepts. His sons, Thessalus and Draco, and his son-in-law, Polybus, continued to follow out his methods of practice and teaching and no doubt were among the real authors of many writings published as the work of Hippocrates. These sons were the real founders of the Dogmatic or Rational School, which devel-

oped from the principles advocated by the Father of Medicine and which marks the beginning of the Period of Sects. Security Building.

#### OPEN AIR SCHOOLS FOR TUBERCULOSIS CHILDREN.

According to a report issued by the National Association for the Study and Prevention of Tuberculosis, since January 1, 1907, sixty-five open air schools for children afflicted with or predisposed to tuberculosis have been established in twenty-eight cities. The first open air school in the United States was established on January 1, 1907, by the Board of Education of Providence, R. I., at the instance of Dr. Allen A. Stone. The next school was established in May of the same year in Pittsburgh, a third one in Boston in July, 1908, and the fourth at Bellevue Hospital in New York in December, 1908. During the year 1909 ten schools in five different cities were opened; in 1910 sixteen schools in twelve cities were opened; and eight schools in five cities have been opened to April 1, 1911, while definite provision has been made for twenty-seven more schools in six cities. Many cities are considering the question and will act during the coming year. New York City now has in operation twelve open air schools and classes, and definite provision has been made for fourteen similar classes to be opened by next fall. Boston has five open air classes in its schools, and Chicago also has several. According to reports received by the National Association, the result of the open air class work has been to restore most of the children to normal health and efficiency. One of these open air schools or classes should be established for each 25,000 population, especially in cities. —New York Medical Journal.



# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

This journal endeavors to mirror the progress of the profession of California and Arizona.

Established in 1886 by

WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

Associate Editors:

DR. GEORGE H. KRESS, DR. JOHN W. FLINN, DR. ELBERT WING,  
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Address all communications and manuscripts to

EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

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## EDITORIAL

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### THE UNIVERSITY COLLEGE HOSPITAL.

Los Angeles has just completed raising \$400,000 to endow and increase the general usefulness of the Y. M. C. A.

This was said to be already the strongest and largest institution of the kind in the world. It is such things as this that help to make Los Angeles substantial and noted and desirable as a home.

Today the people of Los Angeles have begun the work of raising a building fund of \$100,000, and an endowment of \$400,000 for a general hospital to be established on the site of the Los Angeles College of Medicine of the University of California, to be located at 737 North Broadway. This hospital is greatly needed. An institution conducted on the lines of the Barlow Sanatorium, where no person is admitted who can pay over \$5.00 per week. This is real charity. Such

an institution as this where a small amount is charged, and where no large amount is accepted is the great preventive of pauperism. Once get a patient inside of the County Hospital, and you have begun his downward career. He has taken the first step to pauperism. Build up a hospital of the kind proposed by the College of Medicine where each patient will pay from \$1.00 to \$5.00 per week, and you are doing much towards maintaining that person's self respect. In fact, this should not be considered a charity. The establishment of such an institution should be considered a duty and a privilege.

Los Angeles through her Chamber of Commerce, her churches and her Y. M. C. A. has gained success by team work, by united endeavor. So in raising this fund for this institution, let us know no University of California, no University of Southern

California, but simply know that here is an opportunity of doing a most creditable and useful work for those who need it. Let us get together. Let every person do what he can financially, and enthusiastically speak wherever he can, for this noble cause.

The Los Angeles Times of June 6th in the course of a very extended article on the subject, says:

"It is the intention of the physicians who are behind the movement to conduct the hospital as a separate institution, and not directly in connection with the College of Medicine. The work of the hospital is to be under the supervision of the foremost members of the medical profession of the city. The hospital building will be connected with the college buildings only by a court, and the students will be restricted to the use of their own quarters.

"The site is almost directly opposite the Children's Hospital and the Social Workers of the College Settlement, so that there will be concentrated in close proximity three institutions doing heroic service for the sick poor," said Dr. George H. Kress, secretary of the college faculty and chairman of the Hospital Committee, yesterday.

"Nothing is more pathetic than the misery of the poor when they are sick and nothing so heartrending as when self-respecting persons in moderate or poor circumstances are overtaken by sickness and compelled to go to the County Hospital. There are few things that are a greater shock to the moral natures of these people than this, and it is hoped that the

citizens of Los Angeles will come forward and aid in providing better means for the care of this class of deserving persons.

"The present dispensary, which is an institution for the care of sick people, who are up and about, established through a donation of \$20,000 made by J. A. Graves, vice-president of the Farmers and Merchants National Bank, in memory of his son, Selwyn Emmet Graves, who was a student at the College of Medicine, has been caring for as many as 140 persons a day. Excluding Sundays the total number of patients treated during this year will approximate 30,000. These are astonishing figures because few people of Los Angeles would conceive it possible that there are so many poor people sick at the same time.

"A great many of the poor people who receive treatment in this dispensary are afflicted with serious diseases, so that it is necessary for them to go to hospitals.

"It is here intended to supply an institution for Los Angeles and the surrounding country where skilled medical and surgical treatment will be given by the most able men in the profession."

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#### PHTHISIOPHOBIA.

The states and territories of the southwestern part of the United States have good reason for complaint against those who send their hopelessly ill and indigent consumptives to them. Incurably ill patients and indigent individuals of any class should be cared for in the communities in

which the unfavorable conditions have developed. Indignation, protest and censure are proper against those people and communities who shirk their own responsibility in these respects; but at the same time it behooves physicians to recognize clearly that it is only certain classes of consumptives who are in any way a menace to communities in which they live. It is clearly the duty of physicians to know what the facts are concerning the infectiveness of pulmonary tuberculosis, and to keep their friends, and so far as possible, the general public acquainted with them. Under intelligent management any case of pulmonary tuberculosis may cease to be a menace to the members of the family and to the community in which he lives.

Heyman's experiments show that the danger zone about a consumptive, from all causes, is not over three feet. At the Trudeau Sanatorium at Saranac Lake, N. Y., it was found that thorough washing of dishes, knives, forks and spoons used by consumptives, thoroughly removed all tubercle bacilli from them. Tubercle bacilli in sputum placed upon a board and exposed to artificial light are dead in 24 hours, and upon glass in 48 hours. In masses of dried muco-purulent sputum, of the size of an ordinary expectoration, if exposed to direct sunlight they are dead in 48 hours. At the Brompton hospital for advanced cases of pulmonary tuberculosis in the period 1882-1909, among 544 persons of all classes of attendants except nurses—who were excluded in the analysis because they could not be ade-

quately traced—there were only 5 deaths from that disease. Saugmann has made an investigation to ascertain the amount of infection among medical men in charge of tuberculosis institutions in several European countries, and reports it practically nil. He also says that throat specialists do not become infected.

In most cities the annual death rate from pulmonary tuberculosis per thousand of population is three (3). Dr. Gardiner of Colorado Springs, reports a total of only ten (10) cases of non-imported tuberculosis in that city in a period of twenty years. These figures are taken from a recent paper by Dr. Frederick Tice of Chicago. They show unmistakably that all attempts to exercise severe restrictions against freedom of travel of cases of ordinary pulmonary tuberculosis are not necessary, and that the action of the Oklahoma State Board of Health in refusing to grant a license to practice to a physician because he had pulmonary tuberculosis, was unintelligent as well as unjust.

The sufferers with pulmonary tuberculosis who are hopelessly ill or indigent should be kept at home, and cared for there, but all others should be permitted to travel and live where they prefer to without legislative restrictions.

E. W.

#### LOS ANGELES COLLEGE OF MEDICINE—UNIVERSITY OF CALIFORNIA.

The commencement of the Los Angeles Department College of Medicine of the University of California was held in the Barlow Medical



Library at 10:30 a.m., Thursday, June 1st. This beautiful building adapts itself especially to such an occasion. The class of 1911 consists of sixteen, eleven men and five women. The address was by Hon. Frank P. Flint, late United States Senator from California. His subject was, "The Relation of the Medical Profession to National Affairs." It was an interesting, forceful talk, and many of the points were received with great applause. Senator Flint said there were three bills before Congress of great importance to the Country and to the Medical Profession. One was the bill to increase the powers of the Public Health and Marine Hospital Service; another to increase the power of the Bureau of Health, and the third to institute a Department of Health. In regard to the last bill the Senator received three letters from physicians in favor of it, and in one day received six hundred telegrams from those who were not physicians against it. This showed the activity of those who were opposed to sanitary measures. He said that the Panama Canal was being built only through the fact that a medical man, Colonel Gorgas, was making it one of the most healthful places in the world, and that the work done by the Medical Profession of America in Cuba, Porto Rico, and the Philippines commanded the respect and admiration of all nations. It is right here in our own home country that State Medicine is not as efficient as it should be. Many laymen interfere with thorough sanitation. They have become obsessed with the idea that public health measures were unneces-

sary. The Senator closed with an exordium to the class, to go forth as intelligent warriors in the great battle of prevention of disease.

Dr. George H. Kress, the Secretary of the Faculty, then conferred the prize for the highest scholarship during the junior and senior years. John Wilson Nevius won this prize, while John Warren Bardill received honorable mention. The dean, W. Jarvis Barlow then presented the sixteen graduates to Hon. J. W. McKinley, Regent of the University of California, who conferred the degrees.

The friends of Medical Education can well be proud of the work of this college, and of this class of sixteen.

The exercises were unusually interesting, and not of the stereotyped order.

The following is the list of graduates: John Warren Bardill, Roland Stanley Cummings, Lowell C. Frost, Trusten Mitchell Hart, Ralph William Homer, John Edwin McKillop, John Wilson Nevius, Miss Dagmar Peterson, Miss Ruth Purcell, Edward Henry Risley, Miss D. Vera Sadicoff, Leon Shulman, Miss Grace Winifred Tarbell, John W. Truxaw, Walter Ethelbert Weddle, Miss Augusta Zuber.

#### DEATH OF DR. McDONNELL OF ARIZONA.

The Prescott Journal-Miner of May 26, says:

"Dr. J. K. McDonnell passed away last evening, at 7:15 o'clock, in the United Verde hospital at Jerome, following an illness of less than two weeks. The news of the death of this popular young physician came as a shock to the community, and is one of

the most deplorable deaths that has taken place in the county in recent years.

"Dr. McDonnell came to Prescott when a young man. His modesty kept him in the background for some time as a practitioner, and he labored as a pharmacist a few months after his arrival, in 1892.

"He was a graduate of Dartmouth College, New Hampshire, winning distinction in the literary department, and receiving medical degrees. He, immediately came West, after a short residence in Indianapolis, and was employed by Harry Brisley in this city as pharmacist, which he faithfully and ably filled.

"In his boyhood days he suffered the loss of his parents while at the old home in Georgia, when he was taken to Dartmouth, where he attended the public schools and later the institution that is famed all over the country. Thus equipped he made his mark, and the profession that he so capably and gracefully followed is reflected in the good service he performed in the years that passed.

"He is survived by his wife, whose devotion and affection in the dark and trying ordeal of her affliction receives the tender consolation of all in the community, and to whom, and their three little children, Roberta, Kathryn and Betty, kind words of sympathy from all are sincerely extended. Miss Mary McDonnell, teacher in the schools of Jerome, is a sister while his brother, George McDonnell, also resides in the same city, where he is master mechanic of the Arkansas and Arizona Mining company, but is now absent on a visit in San Francisco."

At a special meeting held May 27th, 1911, the Yavapai County Medical Society adopted the following resolutions:

"Whereas, God in His inscrutable

wisdom has seen fit to call to a higher sphere of usefulness, Dr. John K. McDonnell of Jerome, an active and highly esteemed member of this society, and

"Whereas, Death removed him in the flower of his manhood and as he approached the height of his usefulness, and

"Whereas, His kindly spirit, winning manners and sterling character won him a host of friends in all parts of the Territory, and

"Whereas, His studious habits, calm judgment and professional integrity placed him in an enviable position in the medical profession,

"Therefore be it resolved:

That we the members of the Yavapai County Medical Society, mourn the loss of a useful member, a capable physician, and a good citizen, and be it further resolved,

That the Secretary be instructed to spread these resolutions on the minutes of the Society, and that a copy be sent to the relatives of the deceased and copies furnished to the American Medical Association, the Arizona Medical Association and the Daily Press.

"JOHN W. FLINN,

"R. N. LOONEY,

"A. J. MURRIETA,

Committee."

#### A. M. A. PRESIDENTIAL ELECTION.

The Los Angeles dailies are taking great interest in everything pertaining to the approaching meeting of the A. M. A.. The Times of June 2nd says:

"One of the events of interest in the approaching Los Angeles meeting of the American Medical Association will be the election of president. To be president of a body of 33,000 physicians is considered the greatest honor in store for a member of the profession.

"The name of Dr. H. Bert Ellis of Los Angeles, has been frequently mentioned for this position, but Dr. Ellis emphatically refuses to allow his name to be used in this connection. He is chairman of the local Committee of Arrangements, and upon him has fallen the great amount of executive work. He says it would be contrary to all of his ideas of real hospitality for Los Angeles to take advantage of her position, as host, and secure the presidency for a Los Angeles man.

"Dr. E. E. Montgomery of Philadelphia, first vice-president of the Association, is also mentioned, but he is in no sense an active candidate.

"The 'Medical Record,' New York City, is out this week with an editorial leader urging the election of Dr. Abraham Jacobi as president.

"The article says that during the past fifteen years ten surgeons, not counting Gen. Sternberg and Col. Gorgas of the army, have been honored by election to the presidency of the American Medical Association, while only two practicing physicians, not counting Dr. Welch, a pathologist, have enjoyed this distinction. Dr. Jacobi is 81 years old and is today the most noted authority on diseases of children. He is the author of numerous works on his favorite subject. His residence is No. 19 East Forty-seventh street, New York City, and he stands as one of Gotham's most useful citizens."

#### THE ACADEMY OF MEDICINE, EYE SECTION AND HARVARD ALUMNI AT THE A. M. A.

The Los Angeles Herald of June 6th says:

"Preceding the sixty-second session of the American Medical association, to be held in this city June 27-30, the American Academy of Medicine will hold its thirty-sixth annual meeting at the Hayward hotel June 23-26. The

academy, a branch of the association, is composed of physicians and surgeons who in addition to their M.D. degrees have also A.B., B.S., or other bachelor's degrees from some college of arts or science.

"In addition to daily programs, there will be a public meeting in the Arrow theater, Hamburger building, Friday night, June 23, to which the general public is invited.

"Aside from the regular program for the association meeting, the eye and ear specialists of Los Angeles are preparing to take particular care of the eye and ear division of the A. M. A. The local physicians of this class have appointed Drs. Hill Hastings, E. W. Fleming, Frank W. Miller and W. H. Roberts as a special committee of entertainment. They expect there will be about 300 visiting eye and ear men. The committee raised an entertainment fund separate from the general fund, and the first day will entertain one-half of the visiting specialists at dinner at the California club, and one-half at the University club, and the second day will transpose it and the half that were at the University club will dine at the California club and vice versa. These two dinners will cost at least \$1000.

"Dr. David Cheever of 20 Herford street, Boston, is arranging for a dinner to all Harvard men who attend. This dinner will be given at the University club on Tuesday evening, June 27. Dr. Eliot Alden, 609 Exchange building, Los Angeles, is making the local arrangements. All graduates of Harvard are requested to communicate with Dr. Alden as soon as possible.

"Besides the large number of special trains that have already been announced, a new one has been arranged for that will leave Fort Worth, Texas,



at 11 p.m. June 21. The passengers of this train will all be Texas physicians.

"Dr. A. T. McCormack of Bowling Green, Ky., announces that a special train will leave Louisville over the Monon route at 8:06 a.m. Wednesday, June 21. There will also be a special Pullman from Oklahoma City. This makes in all about twenty special trains arranged for.

"Although the regular session does not begin until Tuesday, June 27, a large proportion of the special trains will arrive Monday morning."

#### CHRISTIAN SCIENCE.

##### No. IV.

We here present to the readers of the Southern California Practitioner, another installment by Dr. J. M. Buckley that appeared in The Christian Advocate. Dr. Buckley simply presents facts without bitterness:

##### MRS. EDDY'S FATAL ADMISSION.

The object of these articles is to place in the possession of our readers ammunition for defense and aggression. Active Christian Scientists can confuse every one who does not know just what they profess to believe. Like the Mormons, they do not at first reveal their queer ideas and practices, and they catch the unwary and unprepared by causing them to think that a great deal of their belief is true Christianity. Later they reveal their questionable tenets.

Denunciation alone is a foe to persuasion. Blind and obstinate errorists in science or religion must be choked by their own words and blinded by their own dust.

##### FAITH IN DRUGS WILL CURE, SHE SAYS.

Mrs. Eddy makes some very remarkable and destructive admissions. They break the spine of her theory.

What we quote shows that the "sick"—which is only a "mortal be-

lief"—may recover sometimes by the use of drugs:

[p. 155.]<sup>1</sup> When the sick recover by the use of drugs, it is the law of a general belief, culminating in individual faith which heals; and according to this faith will the effect be. Even when you take away the individual confidence in the drug, you have not yet divorced *the drug from the general faith*. The chemist, the botanist, the druggist, the doctor, and the nurse equip the medicine with their faith, and the beliefs which are in the majority rule. When the general belief indorses the inanimate drug as doing this or that, individual dissent or faith, unless it rests on Science, is but a belief held by a minority, and such a belief is governed by the majority.

Look closely at the following:

[p. 177.]<sup>1</sup> If a dose of poison is swallowed through mistake, and the patient dies, *even though physicians and paternal are expecting favorable results*, does human belief, you ask, cause this death? Even so, and as directly as if the poison had been intentionally taken. In such cases a few persons believe the potion swallowed by the patient to be harmless, but *the vast majority of mankind*, though they know nothing of this particular case and this special person, believe the arsenic, the strychnine, or whatever the drug used, to be poisonous, for it is set down as a poison by mortal mind. Consequently, the result is controlled by the *majority of opinions*, not by the infinitesimal minority of opinions in the sick-chamber.

HERE SHE ALLOWS "MORTAL BELIEF" TO FRIGHTEN HER.

[p. 329.]<sup>1</sup> A little heaven leavens the whole lump. A little understanding of Christian Science proves the truth of all that I say of it. Because you cannot walk on the water and raise the dead, you have no right to question the great might of divine Science in these directions. Be thankful that Jesus, who was the true demonstrator of Science, did these things, and left his example for us. In Science we can use only what we understand. We must prove our faith by demonstration.

*One should not tarry in the storm if the body is freezing, nor should he remain in the devouring flames. Until one is able to prevent bad results, he should avoid their occasion.*

<sup>1</sup> Science and Health, with Key to the Scriptures. Boston. 1911.

Let the critical reader observe what is the effect, according to moral belief, of *freezing*; what is the damage done to the body by freezing, and what upon each organ. Mrs. Eddy consents that she cannot prevent herself by her system, if she expose herself in freezing weather for a long time, from injury and even death. And what is the influence of "devouring flames"? Do they not often destroy one or more organs of the body? Do they not frequently destroy the whole body, bone, flesh, sinew and nerve? Are there not millions in the world who bear the marks of devouring flames? *She acknowledges in this passage that her system will not prevent the damages.*

To "prevent bad results" the Christian Scientist must keep out of the freezing and burning.

HOW MRS. EDDY TRIFLES WITH FOOD.

If Eddyism be true, food should not be necessary and men would live indefinitely without *ingestion* or *digestion*.

Speaking of a woman whom she cured of a "mortal belief" of dyspepsia, she says:

[p. 116.]<sup>2</sup> The new-born understanding—that neither food nor the stomach, without the consent of mortal mind could make her suffer—brought with it another lesson, namely, that *gustatory pleasure is a sensuous illusion*, an illusion that diminishes as we understand our spiritual being and ascend the ladder of Life.

[p. 116.]<sup>2</sup> This woman learned that food neither strengthens nor weakens the body—that mind alone does this. True, mortal mind has its material methods of doing it; one of which is to say that proper food supplies nutriment and strength to the human system. She learned also that mortal mind makes a mortal and sickly body, because it governs it with mortal opinions.

[p. 332.]<sup>2</sup> *The truth is, food does not affect the life of man; and this becomes self-evident, when we learn that God is our only Life. Because sin and sickness are not qualities of Soul, or Life,*

we have hope in immortality; but it would be foolish to venture beyond our present understanding, foolish to stop eating, until we gain more goodness, and a clearer comprehension of the living God. In that perfect day of understanding, we shall neither eat to live, nor live to eat.

These square statements that "food neither strengthens nor weakens the body" and "the truth is, food does not affect the life of man," if true, demonstrate that we can live without food, and that the only reason we should eat it is that "it would be foolish to stop eating" until we can master Christian Science.

When Christian Scientists dispense with food because *mortal mind is under the influence of an illusion concerning it*, supposing that "food supports life" and continue to live with the human body sustained entirely by divine substance, of which they speak, they will furnish a demonstration which will utterly destroy every remaining illusion of "mortal mind."

But so long as *they eat* they are either voluntarily perpetuating an illusion or demonstrating that they are wrong in their notions. When it would not be necessary to eat if they were in a higher plane, if they are yet in such a low stage as to be compelled to eat, they may for the same reason be compelled to use *hygiene, drugs, exercise, baths and surgery*.

#### THE EFFECT OF DRUGS UPON ANIMALS AND IDIOTS.

That drugs produce powerful effects upon animals has been demonstrated beyond the possibility of contradiction, and that when the animals did not know that they were taking drugs. Small doses in most cases have produced no visible effect, while large doses (the animals in each case not knowing that they were taking medicines) have produced great effect, and in certain diseases do so with uniformity.

<sup>2</sup> Science and Health, with Key to the Scriptures. Twenty-fourth Edition. Revised, Boston. 1886.

Almost every drug has the effect of poison if taken in excess. Some poisons, however, are of such a nature that the least possible doses may kill. In the case of animals, poisons introduced into the system without the knowledge of the animals do their work effectually. A cat's tenacity of life is such as to give probability to the proverb that a cat has nine lives, but strychnine carefully introduced into a piece of meat so small that a cat can swallow it whole, will in a very short time show extraordinary effects, and frequently prove fatal.

The transient effects of stimulants upon persons who have apparently been in a state of dementia for a long time are well known. Idiots also respond both to medicines and poisons without any knowledge of what they are taking or why it is given them.

Extraordinary accidents to the body demonstrate the folly of this theory. Whatever may be said of the power of thought in the production of ordinary disease, the effects of accidents to persons who are entirely unconscious when they occur, such as the sleeping victims of railroad disasters, are a great deal more than a belief in such a possibility. Carol Norton, who was the most conspicuous male Christian Science healer in the city of New York, was commissioned by Mrs. Eddy to go to Chicago to introduce or promote Christian Science there. He had not been there long before something fell from a high building upon him, crushed his skull and ended his life.

#### WHY DID PRESIDENT MCKINLEY DIE?

How Mrs. Eddy wormed herself in and out of her theories may be illustrated by her remarks on the death of President McKinley. When she was asked why Christians of every sect in the United States failed in their prayers to save the life of President McKinley, she responded:

Insufficient faith or spiritual under-

standing, and a compound of prayers wherein one earnest tender desire works unconsciously against the *modus operandi* of another, would prevent the result desired. In the practice of materia medica croton oil is not mixed with morphine to remedy dysentery, for these drugs are supposed to possess opposite qualities and to produce opposite effects.

Our lamented President, in his loving acquiescence, believed that his martyrdom was God's way. Hundreds, thousands of others believed the same, and hundreds of thousands who prayed for him feared that the bullet wound would prove fatal. Even the physicians may have feared thus.

These conflicting states of the human mind, of trembling faith, hope and fear, evinced a lack of the absolute understanding of God's omnipotence, and thus they prevented the power of absolute truth from reassuring the mind, and through it, resuscitating the body of the patient.

The facts are that the physicians and surgeons for the greater part of the time believed that the President would recover; *at the risk of their reputation if they erred, they issued the most encouraging bulletins.* One of the most celebrated declared that the President was sure to recover, and that he might even then be safely taken to Washington; only that under the circumstances they should be extremely cautious.

*The post-mortem showed that the beloved President was fatally wounded from the beginning!*

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Consumptives in Syria are treated today much in the same way as the lepers have been for the last 2000 years. Tuberculosis is a comparatively recent disease among the Arabs and Syrians, but so rapidly has it spread that the natives are in great fear of it. Consequently when a member of a family is known to have the disease, he is frequently cast out and compelled to die of exposure and want. A small hospital for consumptives has been opened at Beyroul.



## EDITORIAL NOTES

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Dr. John K. Morris has located in Escondido, Cal.

Dr. J. W. Utter has located in Hemet, succeeding Dr. D. S. McCarthy.

Dr. Edward R. Bradley now has offices in the Security Bldg., Los Angeles, Cal.

Dr. William Fenton Millington has returned to Brooklyn, New York City, and is located at 665 Tenth street.

Dr. J. K. Swindt of Pomona lost his beautiful home by fire on May 20th. He has already commenced rebuilding.

Dr. E. J. Johnson has returned from a trip to St. Paul, Minn., where he was called by the death of his father.

Dr. Jane E. Spaulding, for twenty years superintendent of the Cottage Hospital at Santa Barbara, has resigned.

Chief Police Surgeon C. E. Zerfing, who has been suffering from a surgical infection of the hand, is now recovering.

Dr. Robert Tebbitt who formerly practiced in Minneapolis has located in Los Angeles with offices at 701 Alvarado street.

The proceedings of the American Medical Editors' Association at their meeting in Saint Louis in 1910, is just off the press. It makes an instructive volume.

The announcement of the engagement of Dr. Henry Lissner and Miss Lilly Meyer, both of Los Angeles was made recently. The wedding will take place in August.

Dr. M. L. Moore of Los Angeles addressed the San Bernardino County Medical Society at Redlands on the evening of May 16th. His subject was "Caesarian Section."

Dr. Newton J. Rice, of Pomona, and Miss Jennie McCook, of Claremont were married in San Diego on April 7th. They took their clergyman with them from Pomona.

Drs. Thomas L. Rogers, Joseph L. Derrick, Lulu H. Peters, Watson Graham, Walter E. Deering and Lyle G. McNeile were recently elected members of the Los Angeles County Medical Association.

**Preventive Dentistry for Children** by M. Evangeline Jordan, D. D. S., Los Angeles, California, Associate Professor of operative and clinical Dentistry (children's teeth) University of Southern California, is a useful reprint.

Dr. Geo. H. Kress, 240 Bradbury Building, Los Angeles, has recently issued The Bulletin of the California Association for the Study and Prevention of Tuberculosis. It contains a vast amount of valuable data.

A committee of twenty-five members of the Pasadena Board of Trade have been appointed to assist in entertaining the members of the American Medical Association, on Friday, June 30th, which is Pasadena Day.

Dr. Bruce L. Crise of Escondido, San Diego County, has taken up lemon ranching as a side line. He has raised his own nursery stock, thus making a handsome saving, as lemon trees of the planting age cost \$1.25 each.

Dr. and Mrs. Geo. L. Cole sailed for Europe on the Steamship America on Thursday, June 8th. Mrs. Cole's health has not been good and she will remain at Carlsbad for some time, while Doctor Cole visits the hospitals of Berlin and Vienna.

It is expected that during the American Medical Association meeting in Los Angeles there will be a number of

public addresses by Surgeon General Walter Wyman, William C. Gorgas, S. Adolphus Knopf, Abraham Jacobi, W. A. Evans of Chicago, and other noted men who are authority along this line.

Dr. and Mrs. Sumner J. Quint, of Los Angeles were in the depths of despair recently when they saw an automobile run over their six year old son. The boy's left leg was broken, and he was severely bruised, but he is making a good recovery.

Dr. J. J. Choate of Los Angeles was recently called to Rome by cablegram to attend a young Los Angeles lady who was very ill. Dr. Choate reached Rome thirteen days after he left Los Angeles. He sailed from New York on the Mauretania.

Leland Stanford Junior University sends out the annual announcement of the Department of Medicine (Founded as Cooper Medical College by Levi Cooper Lane) for 1911-1912. This shows that there are ten students in the first-year class and six in the second year.

The Yavapai County Medical Association has issued a useful and authoritative Climatological and Health booklet of Prescott, Arizona. Dr. W. Jarvis Barlow is quoted as one of their authorities. For a copy address request to Prescott Chamber of Commerce.

May 4th Woodrow Wilson, the governor of New Jersey, signed the so-called sterilization bill providing for the asexualization of criminals and defectives. A board of examiners is to be appointed to carry out the law. Similar laws are in force in Indiana and Connecticut.

Howard Munro, M. D., L. R. C. P. & S. Edinburgh; L. R. F. P. & S. Glasgow, Member Royal Institute of Public Health, London, Eng., has located in the Union Trust Building, Los Angeles.

Dr. Munro is a McGill 1903 man and previous to coming to California was a practitioner in Glengary County, Ontario, Canada.

Dr. Harry M. Wegefaith, Dr. B. J. O'Neill, and Dr. H. C. Loos have been appointed members of the San Diego Board of Health. Dr. Wegefaith is a graduate of the Baltimore Medical College, class of 1906; Dr. O'Neill graduated from the Rush Medical College, class of 1906, and Dr. Loos from the Cooper Medical College, class of 1905.

Dr. John A. Colliver of Los Angeles recently lectured at the Riverside High School Auditorium before an audience composed of doctors and teachers on "Physical Irritation as the Beginning of Delinquency." The lecture was illustrated with stereoptican views. The subject was afterwards discussed at a meeting of the Riverside County Medical Association.

The Pacific Hospital, Los Angeles, held the commencement exercises of its Training School for Nurses on the evening of May 12th. The graduates are: The Misses W. Eleanor Dittus of Kenton, Ohio; Evalena Anthony of Waterford, Canada; Harriet D. Martin, Cora C. Vanasek and Nell M. Rutan of Los Angeles.

Whenever a reader of the Southern California Practitioner stops over in Indianapolis he will find himself well paid if he visits the New Science Building of Eli Lilly & Co. It is an elegant fire-proof structure with laboratories, photographic rooms and pharmacological departments, all equipped in the most modern style. This building was one year in construction.

Dr. and Mrs. W. A. Edwards took their new 90-horse power Packard in Chicago and motored to Washington and New York City. Then returned to Washington by train and spent two weeks at the White House as guests

of President and Mrs. Taft. They have since gone abroad taking their American car with them. They will spend several weeks motoring on the continent and in England.

Dr. Frank W. Kidder and Miss Irene Bonham, both of Los Angeles, were married at the home of the bride's parents, 1225 Arapahoe street on the evening of May 10th. Dr. Kidder is a graduate of the college of Physicians and Surgeons of the University of Southern California, and is assistant police surgeon. The marriage service was read by the groom's father, Rev. A. A. Kidder.

Dr. John Quincy Adams died in Los Angeles, May 23rd. He was 84 years old, having been born in Rushford, New York, December 31st, 1826. He was a graduate of the College of Physicians and Surgeons, New York, and practiced in that city until 1888 when he retired and came to Pasadena to live. He presented that city with his medical library of 700 volumes. His body was cremated.

The annual banquet of the Orange County Medical Association was held Tuesday evening, May 2nd. Dr. John L. Dryer was toast-master. Preceding the banquet, the following officers were elected for the ensuing year: Dr. J. M. Burlew, of Santa Ana, as president; Miss Ida Parker of Orange, vice-president; Dr. John Wehrly, secretary; Dr. H. S. Gordon, treasurer, Dr. C. D. Ball, librarian.

We have received from Dr. John B. Roberts of Philadelphia the following reprints: "Intermittent Intestinal Obstruction from kinks in the Large Bowel." (2) The Operative Cure of Cicatricial and Congenital Deformities of the Face. Dr. Roberts says: To avoid the recurrence of these troublesome kinks from adhesions, after operation on the appendix and other organs, care should be taken to cover

raw surfaces with peritoneum when practicable.

The Toronto Globe of May 15th contained the following in regard to Dr. D. S. McCarthy, recently of Hemet: Orangeville, May 14.—Dr. Dalton McCarthy, eldest son of Judge M. McCarthy, County Judge of Dufferin, died here to-night, aged forty-two years. Dr. McCarthy returned here from Los Angeles only three weeks ago in a critical condition. Messrs. M. S. McCarthy, M. P., Calgary, and M. M. McCarthy, Bank inspector of Winnipeg, are brothers of deceased.

The Physicians Club of San Diego held its annual meeting May 4th. The following officers were elected for the ensuing year. Dr. W. A. Winship, Pres; Dr. J. E. Jennison, Vice-pres; Dr. B. J. O'Neill, Secy-treas; Directors: Drs. V. G. Clark, I. D. Webster, R. Lorini, Fred Baker, and H. Newman. Several important additions to the club library have been received during the past year, rooms are maintained in the Timken Bldg., at which the County Society meetings are held, and the club is in a very flourishing condition.

Dr. W. H. Welch, the great pathologist of Johns Hopkins, after receiving his A. B. from Yale, was for some time a tutor in a Massachusetts family. His daily work in those days consisted in rising at 7, working until 4 p.m., walking until 6 p.m., and then studying until 3 a. m. Dr. Welch as president of the American Medical Association will soon be in Los Angeles. He will here meet one of the boys he tutored in that New England home. This boy is now one of the leading business men of the Pacific coast.

In an address last week before the New York Teachers' College, Frederick H. Hoffman presented striking figures relative to the increase of sui-



cide in this country. In the 65 largest American cities there was in 1890 an annual suicide rate of 12.3 to every 100,000 of population. In 1895 the rate was 15.8; in 1904 it was 20.7; and since 1907 it has remained above 20. The highest actual rate in a single city was 60 in San Francisco. Oakland, Cal., stood second; and Hoboken, N. J., came third, with a rate of 52.6.

The San Diego County Medical Society and the Physicians' Club of San Diego entertained the medical officers of the Pacific Squadron and of the troops now stationed here at a smoker given at the University Club on the evening of May 18. Dr. I. D. Webster welcomed the visitors on behalf of the County Society and Dr. F. R. Burnham on behalf of the Club. Fleet Surgeon Norton, Medical Inspector Evans, Dr. Angwin of the U. S. S. California, and others of the visitors spoke. Dr. T. L. Magee gave a very interesting account of the origin and early struggles of the County Society.

The Graduating Exercises of the Los Angeles County Training School for Nurses were held Thursday evening, June 8th. The following were the members of the class of 1911: Sara Ericson, Mary Davis Briggs, Edna A. Madison, Eva Fraser, Jessie May Colepaugh, Minnie Germain, Guy Thomas, Emma Melendy, Anna Felber, Ora Anderson, Emma Dyer, Corabel Watkins, Leona White, Peoria Parker, Ethel Stokes, Pearl Johnson, Florence G. McIssacs, Hazel F. Williams, May Ferguson, Bessie Stokes, Jessie Cunningham, Mary Hall, Margaret Miller, Mary West, Madaline Dixon, Inga Larsen, Edwin Gwynne, Dora B. Cable, Lillian Huber, Walter Stapleton, Anna Mullins.

Studies Upon Plagues In Ground Squirrels. In Four Parts: Part I. Pathology and bacteriology of plague in ground squirrels; Part II. Notes on

induced plague in ground squirrels; Part III. Immunity of certain squirrels to plague infection; Part IV. Insect transmission in relation to plague among ground squirrels; and A Plague-Like Disease of Rodents, by George W. McCoy, Passed Assistant Surgeon, are to be found in Public Health Bulletin No. 43. Any physician interested in this subject can secure a copy by addressing a request to Surgeon-General Walter Wyman, Public Health and Marine Hospital Service, Washington, D. C.

Dr. Boris Sidis, of the faculty of Harvard University, has this to say about his boy: "My son was 13 years old on the first of April. He is tall—5 feet, 4 inches—and weighs 112 pounds. Since last year he gained nearly 20 pounds in weight. He looks like a boy of 16. At present he is at Harvard taking advanced courses in the highest branches of mathematics and astronomy, also in the highest branches of modern critical analysis of Greek literature. He knows Homer by heart and reads the works of Æschylus, Sophocles, Euripides, Herodotus, Lucian, with the same ease with which a high-school boy reads Dickens and Walter Scott. He has a sound knowledge of logic, philology, and comparative religious mythology. He also has a fair understanding of our politics and the groundwork of our Constitution. I may say that he works no more than five or six hours a day."

Twenty-five years ago the editor of the "Southern California Practitioner" persuaded a Philadelphia surgical instrument house to place a stock in the retail drug house of Sale & Son. These were the first surgical instruments ever on sale in Los Angeles. Up to that time Southern California physicians were obliged to send to San Francisco for all surgical supplies. Today Los Angeles is better able than San Francisco to satisfy the needs of

the surgeon. There are several large surgical instrument houses, a number of them larger than the Philadelphia house that sent the first stock here. The Pacific Surgical Manufacturing Co., 316 W. Fifth Street, Los Angeles, is a truly metropolitan establishment. Besides a full assortment of surgical instruments the Pacific Surgical carries portable X-ray machines, office and hospital furniture and instruments for blood pressure diagnosis.

Dr. John B. Cook, brother of Dr. Edward J. Cook, age 43 years, a well known physician of Los Angeles dropped dead at his home No. 1809 W. 22nd street on Saturday evening May 20th. Dr. Cook had not been in good health for some time, but the day of his death he was in good spirits and feeling better than for some weeks. His brother, Dr. Edward J. Cook, had called on him about an hour before his death, and they had talked and laughed together, and spent an enjoyable half hour. Dr. Cook was a graduate of the college of Medicine of the University of Southern California, and then served as interne in the Los Angeles County Hospital. He practiced medicine in Whittier for five years, and then for five years in Santa Ana, after which he moved to Los Angeles where he had been practicing for ten years. A number of fellow physicians were pall bearers at the funeral. He was justly held in high esteem by a large circle of friends.

The California Hospital, Los Angeles held the exercises of its Training School for Nurses at the Gamut Club, Thursday evening, June 1st. Gurney Newlin, Esq. delivered the oration, and Dr. E. L. Leonard gave the address on behalf of the faculty of the Training School. The following is a list of graduates: Tillie Mae Richardson, Buchanan, Michigan; Ethel Elizabeth Bennette, San Bernardino, Cal; Ethel May Lent, Dayton, Ohio; Mary

Josephine Peck, Bluefield, West Virginia; Ella Ruth Lewis, Berkeley, Cal; Jessie Wray Smythe, Quincy, Ill; Olga Rosalind Anderson, Boulder, Colorado; Mathilda Palm, Ventura, Cal; Frances Evelyn Parks, Hemet, Cal; Eva Jane Rinehart, Modesto, Cal; Charles D. Musbach, Port Washington, Wis; Sarah Magill Coulter, Rensselaer, N. Y.; Zu M. Gray, Los Angeles, Cal; Carrie Julia Johnson, San Bernardino, Cal; Verna Mae Shaw, Peoria, Ill; Jeva Janet Murray, Toronto, Canada; Clyde Sharp, Knoxville, Tenn., Katherine B. Martin, San Francisco, Cal; Bessie Bessey Miller, Seattle, Wash.; Lyda Koonst, St. Paul, Minn.; Charles August Fryburg, Worcester, Mass.; Emma Middaugh Cushing, Avoca, Iowa; Mabel Leslie Hagerman, Cobourg, Canada; Katherine Leslie Trader, Toledo, Ohio; Catherine Grace Anderson, Boulder, Colorado; Ida Frances Reiley, Googootee, Indiana; A. Adelle Wilcox, Seattle, Wash.; Ethel Lynnea Carlson, Ormsby, Minn.; Fannie Earp Gooden, Santa Barbara, Cal. Dr. W. W. Hitchcock, vice-president, in the absence of E. R. Smith, president, delivered the diplomas to the graduates, and Miss A. A. Williamson, superintendent of nurses, presented each one with a class pin. The exercises were followed by dancing under the general management of Dr. J. J. O'Brien.

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Japan is not lagging behind in the fight against tuberculosis. The Japan Health Association has over 200,000 local members and carries on a campaign of lectures in the cities and towns of the country. Tuberculosis is increasing in Japan, due chiefly, Prof. S. Kitasato of Tokyo says, to the rapid development of the factory system of industry, the introduction of modern methods and manners of civilization, and the increasing acuteness of the struggle for existence.

## BOOK REVIEWS

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A HANDBOOK OF PRACTICAL TREATMENT. In three volumes. By 79 eminent specialists. Edited by John H. Musser, M. D., Professor of Clinical Medicine, University of Pennsylvania; and A. O. J. Kelly, M. D., Assistant Professor of Medicine, University of Pennsylvania. Volume II: Octavo of 865 Pages, illustrated. Philadelphia and London; W. B. Saunders Company, 1911. Per volume: Cloth, \$6.00 net; Half morocco, \$7.50 net.

Volume II treats of Diseases of the Circulatory System; Infectious Diseases; Tropical Diseases and Animal Parasites.

The first article of about one-hundred and fifty pages on Diseases of the Cardiovascular System is by Sir Clifford Allbutt.

On page 77, in speaking of the combination of vasodilators with digitalis, he makes this comment: "These suggestions, based as they are upon arguments of some plausibility, deserve attention. They stand so far as I know on a speculative basis only, while my own experience indicates that vasodilators—such as the nitrites—so far from expediting the good effects of digitalis in appropriate cases, have a contrary and even noxious effect." However, in his later remarks, his basis of reasoning is such as to modify this positive statement to a considerable extent.

Allbutt in considering the therapeutics of Cardiac Diseases devotes considerable attention to the use of opium and its derivations. On pages 91, 92 and 93, the use of opium in some cases of broken compensation is treated in a manner that carries with it a great deal of weight. The administration of morphine in these cases of broken compensation is one in which there is a great deal to be said both pro and con, and Allbutt tries to straighten out the tangle by clearly determining which case shall receive morphine and which shall not. The main argument is to substantiate a paper he wrote in 1869 advocating

the use of opiates in these cases. The dose to be a moderate one, and its effects carefully observed. He quotes many authorities who have sustained him in this idea.

On page 98, under the head of "Tapping Dropsies" occurs this statement (which cannot be too fully emphasized): "In such a state of things temporary alleviation may be given by operative means. Too often fluid is left in one or both pleural cavities which might have been drawn off, much to the solace of the panting sufferer. The puncture is nothing, and the fear of septic change remote, even under no extraordinary precautions. Here the dilemma is not very perplexing."

Typhoid Fever is considered by Rufus I. Cole, and the Surgical Complications of Typhoid Fever by John M. T. Finney.

With regard to the Surgical Complications of Typhoid Fever, on page 259 Finney says: "In view of the foregoing facts, there can be no doubt as to the proper treatment of typhoid perforation, and in cases in which the diagnosis is in doubt, an exploratory laparotomy is justifiable and proper, as it is generally conceded that it influences but slightly the course of the disease if nothing is found." There are many who would qualify this statement by taking into consideration the environment and operator.

Pneumonia is given considerable space by Hobart Amory Hare, and so it will be seen that throughout the work most eminent authors and workers, not only of this continent, but of the world have been chosen to consider the various subjects.

The second volume substantiates the view taken by the reviewer in considering the first volume, i. e., that it is a work which should be placed



in every library not only of the general practitioner in either medicine or surgery, but also in the library of every specialist.

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**A TEXT-BOOK OF GENERAL BACTERIOLOGY.** By Edwin O. Jordan, Ph. D., Professor of Bacteriology, in the University of Chicago and in Rush Medical College. Second revised edition, octavo of 594 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$5.00 net.

This second edition of a now well-known text-book has been much improved in the illustrations and an amplified index. The text has not materially altered. It has been brought down to date by new material such as the newer methods of studying bacteria, the relation of bacteria to sauer kraut fermentation, the relation of intestinal bacteria to food assimilation, and the latest bacteriological research in acute poliomyelitis. Jensen's recent (1909) physiological classification of bacteria is introduced. C. L. B.

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**THE ANATOMIC HISTOLOGIC PROCESSES OF BRIGHT'S DISEASE AND THEIR RELATION TO THE FUNCTIONAL CHANGES.** Lectures delivered in the Russell Sage Institute of Pathology, City Hospital, New York, during the winter of 1909, by Horst Oertel, Director of the Sage Institute of Pathology, New York. Illustrated. W. B. Saunders Company, Price \$5.00.

This work compasses its title as nearly as the knowledge of the day makes that possible. After an instructive historical resumé of the subject, complete in detail, the author develops a full histological and physiological picture of the normal kidney. He explains the mechanics of urinary excretion through blood pressure as affected by proximity of the kidney to the aorta and systemic pressure and further dilates upon the vasomotor changes in the kidney proper through the glomeruli and tubules, and its effects on osmosis. The selective action of the parenchyma as effected by variations in pressure and blood composition is handled on broad lines. Oertel does not lean to any simple

theory of mechanical filtration, chemical action or specific vital force of the cells, but rounds out his hypothesis of normal function as a combination of all these factors. He then develops nephritis as a continuous and diffuse process, basing his classification on the predominance of degenerative, regenerative or productive reactions. He believes any damage, however slight, leaves its permanent impress and that true regeneration of fully efficient parenchyma is impossible. His conception of inflammation is that it is the fight for self-preservation made by the cells, including the fixed tissue cells. Their methods of defense are phagocytosis and production of specific antibodies. The highly specialized parenchyma when attacked undergoes changes in morphology and function, the cells leaving off their ordinary work and putting themselves on the defensive. Marked changes occur at the same time in the vascular system. Oertel dwells with emphasis on the reaction of the endothelial cells, and makes the exudation merely an incident due to prevention of resorption through the lymphatics. In recovery the glomeruli and tubules become relined by epithelium of an aberrant type. Where desquamation or denudation has been extensive connected tissue hyperplasia and substitution takes place. Necrotic areas are finally filled by scar tissue; obstructed tubules become cystic and circulatory interference with nutrition leads to various degenerations.

After nephritis of any severity he makes the point that we have an organ structurally and functionally reconstructed, and necessarily reacting through life abnormally, and eventually changing the physiology of the whole organism through retention toxæmia.

Oertel traces casts to the fusion of cell remnants, resulting from inflammatory reactions and degenerations.

The detritis undergoes disintegration fusing into hyaline material on its slow passage through the tubules. Casts may include remnants of endothelial, epithelial or ordinary connective tissue cells plus blood elements. The book is splendidly illustrated with micro-photogravures. The frontispiece is a diagrammatic sketch of the histo-anatomy of the kidney in colors. It is exceptionally suited to the understanding of those readers who have neglected their histology.

C. L. B.

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A TREATISE ON DIAGNOSTIC METHODS OF EXAMINATION. By Prof. Dr. Hermann Sahli, Director of the Medical Clinic, University of Bern. Edited, with additions, by Nathaniel Bowditch Potter, M. D., Asst. Professor of Clinical Medicine, College of Physicians & Surgeons, New York. Octavo of 1229 pages, containing 472 illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$6.50 net; Half Morocco, \$8.00 net.

Prof. Dr. Sahli's book on Diagnostic Methods has found a place in the archives of Medical Works that will, indeed, fulfill a long felt want. Comparison with the German edition shows that this work has been thoroughly gone over, new paragraphs and numerous illustrations have been added. Particularly worthy of mention is the chapter on auscultation of the respiratory organs.

Too much care cannot be given to the examination of the lungs, and while there is much to be learned from observation of the chest, palpation and percussion, there is still more of diagnostic value in proper auscultatory methods which serves as a verification of other findings in relation to chest phenomena. The paragraphs on the theory of production of the normal breath sounds and their relation to the pathological changes in disease are lucidly brought out, and it would more than repay the older practitioner to read this chapter and rejuvenate any thoughts he may have had on this subject.

In considering the circulation, much stress is laid on the value of the blood pressure in the veins and the significance of the

#### VENOUS PULSE.

Perhaps no one subject requires so much care and thought as this, and generally from the diagnostic point of view, not much attention is given to this subject by the average practitioner. The methods of measuring the venous pulse usually being rather tedious and requiring instruments of precision which the busy doctor has but little time to work with, are mentioned as are also those methods of estimating venous blood pressure by a technic within the reach of the most active physician. The value of such observations in the diagnosis and final treatment of heart conditions cannot be estimated, as only too often we prescribe digitalis for heart conditions with a knowledge of but one half of the circulatory apparatus. Gartner's method of measuring the venous pressure is critically discussed by the author and while he does not agree in all of the conclusions of the former, he does admit that the method is of clinical value. The methods of Von Frey, Von Recklinghausen and Von Basch and others, while entailing much more labor and accurate technique are based upon the measurement of the pressure in the veins of the hand. Von Basch places a glass vessel open below over a superficial vein on the back of the hand and raises the pressure in the vessel until the vein collapses. The pressure exerted equals that in the veins at that moment. The author considers, however, "that the jugular veins are more trustworthy witnesses to speak for venous stasis, because when they collapse, we are certain that their blood empties into the innominate veins. Hence when the upper half of the body is raised and the jugular veins previously noted to be congested are seen to collapse, we are

certain that the hydrostatic pressure in the innominate veins has been overcome. In this general sense, the collapse of the jugular veins may be utilized in the clinical diagnosis of stasis, but no exact measure can be expected for the reasons cited above, and principally because of the arterial blood-supply." To my mind this clear representation of the weaker half of the circulation establishes a foundation through which a better knowledge and a more scientific consideration of heart conditions in general will be established.

The laboratory side of medicine also receives its due quota of mention. The basis of the medicine of the future will be found in a proper understanding of metabolism. The examinations of the stools and urine is well presented, not only from the usual bacteriological and chemical point of view, but also from the end results of tissue change.

The book contains much valuable information and its careful perusal will more than repay the student of its pages for any hours spent with it.

H. H. L.

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**HYDROTHERAPY** for students and practitioners of medicine. By George Knapp Abbott, M. D., Dean of the Faculty and Professor of Hydrotherapy and Practice of Medicine in the College of the Medical Evangelists, Loma Linda, California. The College Press, 1911, Price \$3.00

This neat, presentable volume comes to us from this new medical college in San Bernardino County. There are thirty-three illustrations. The author is an enthusiast, but no person can really teach any subject without being an enthusiast. He is an especial advocate of hydrotherapeutics in pneumonia, and believes quinine, strychnine and alcohol are harmful in this disease. He quotes John H. Musser who says: "In the majority of cases of pneumonia I prefer to rely on fresh air, on judicious local treatment, on hydrotherapeutics, on regulation of the

proper amount of food taken, and particularly on care that the patient is not overfed.

The teaching of this work is distinct and specific. It gives in detail just how to treat numerous diseases and conditions.

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**STATE BOARD QUESTIONS AND ANSWERS.** By R. Max Goepp, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Second Edition Revised. Octave volume of 715 pages. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$4.00 net; Half Morocco, \$5.50 net.

This large cyclopedic volume comes to us bristling with facts on every conceivable question that might be conjured up by those terrible griffins—the "state medical" examining boards. The work is adapted to its purpose and can well be used as a handy compendium by the busy man who has already secured his license.

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**THE PRACTICE OF SURGERY**, by James G. Mumford, Instructor at Harvard Medical School. Octavo of 1015 pages, with 682 original illustrations. Cloth, \$7.00 net; half morocco, \$8.50 net. W. B. Saunders Company, 925 Walnut St., Philadelphia.

This practice of surgery differs greatly from the conventional consideration of the subject. Mumford says, "I give the reader an account of the practice of surgery—of surgery as he will see it at the bedside, in the accident ward, and in the operating room. Curiosities of surgery should be known, but their infrequency will limit their familiar study by the average practitioner."

In Chapt. V, describing

#### INJURIES OF THE LIVER

the author states, "The shock is often out of proportion to the bleeding. The treatment must be heroic; rarely is delay permissible. With evidence before him of severe injury, pain, abdominal hemorrhage and profound shock, the surgeon must open the abdomen at once, through a long semilunar line, or through a sweep-



ing incision parallel to the margin of the ribs. When the rent in the liver is found it must be treated with deep sutures, threaded on a blunt needle, by the cautery, or by tampon."

Mumford prefers heavy, buried cat-gut stitches.

Radical treatment is advised in dealing with carbuncles. The author says, "Don't coquette with a carbuncle. Cut it out as you would a cancer, and you will never regret it." Crile's pneumatic suit, for treatment of shock is described and shown on page 770. The philosophy of its action is that peripheral compression forces blood to the basal centers and floods the heart. The book is abundantly illustrated. Many of the pictures are decidedly schematic. This is perhaps an advantage, as the desired lesion can be more clearly conveyed. On page 232 is a good picture showing the arrangement of bed to maintain patient in the Fowler position.

Emphasis laid upon certain features of genito-urinary and gynaecological practice make chapters of the book read like words devoted to these specialties. Clinical surgery with prominence given to the every-day features of its practice quite accurately embodies the scope of this work.

C. W. D.

FOOD AND THE PRINCIPLES OF DIETETICS. By Robert Hutchison, M.D. Edin. F.R.C.P., Physician of the London Hospital; Physician with charge of Out-Patients to the Hospital for Sick Children, Great Ormond Street; Author of "Lectures on Diseases of Children," "Patent Foods and Patent Medicines," "Applied Physiology," Joint-Author of "Clinical Methods." With Plates and Diagrams, Third Edition. New York: William Wood & Company. 1911. Price, \$3.

This volume is not a mere dietary, or a work containing page after page of recipes, but while containing much elementary and detailed matter, it is also a thoughtful, we might almost say, philosophical treatise.

In speaking of the amount and

nature of food required in mental work, the author is very emphatic in declaring that there is no special brain food, and that an increased supply of phosphorus in food has never been shown to be especially favorable to mental effort.

In regard to the influence of climate and season on the amount of food required, he claims that this is commonly exaggerated, and that the consumption of food by the inhabitants of the tropics is not noticeably less than of those who live in the temperate zone, but the arctic climate does demand more and he quotes Sir John Franklin in saying that no quantity of clothing could keep us warm while we fasted, but on those occasions on which we were enabled to go to bed with full stomachs we passed the night in a warm and comfortable manner.

In referring to the influence of underfeeding or imperfect feeding upon the mind, he says, it not merely lowers the mental power, but develops a feeling of dissatisfaction, discomfort, and depression, culminating sometimes in madness and hallucinations. He says, "A hungry man is an angry man," and "The love of purposeless destruction exhibited by the Parisian Communists in our own day may be fairly credited to deficient food. No well-fed people could have wrecked the Vendome Column or burnt the Town Hall and Tuilleries, of which they were so proud. They were like hungry children smashing their dolls."

He shows the lack of nutritive value in beef tea, and quotes Jessop in saying that 52-10 tons of beef are used in London charitable institutions for making beef tea every week, and that of this two-thirds of the nutritive value are really wasted, but he allows that beef tea is valuable as a vehicle for carrying cereals and other foods, and that it aids digestion by calling out a flow of gastric juice.

whilst its pleasant flavor rouses the appetite.

Pemmican is bulk for bulk the most nourishing food known, as it is made by the incorporation of 40 parts of fat and 50 parts of powdered meat.

He is very emphatic in praising the use of skim milk and says it supplements any lack of proteid in the diet more cheaply than is done by any other animal food except salt fish. It is in carbohydrates that milk is especially deficient, hence, it should be used chiefly in conjunction with other foods rich in that ingredient; such a food as bread.

"From an early age milk was regarded as a sovereign remedy in many diseases. By Hippocrates, Celsus and Galen it was recommended in phthisis, and especially in gout. Amongst medieval writers Van Swieten and Hoffman also recognized its great virtues, whilst its most strenuous advocate in modern times has been Dr. Karell, late physician to the Czar of Russia. Donkin also did much to make its virtues known, while in later years it has attained prominence as an important part of the "Weir-Mitchell treatment."

Karell recommends a trial of the milk cure in dropsies, asthma, neuralgia of intestinal origin, cases of "malnutrition," and some diseases of the liver. Its use in diabetes, obesity and some forms of valvular heart disease is most valuable.

The directions given by those who have had most experience of its use are that milk should be skimmed, and should be given fresh, not boiled.

Citric acid is one of the valuable ingredients of milk. A cow yields as much citric acid per day as would be contained in two or three lemons.

The chapter on vegetarianism is very enlightening, but the author is firm in his belief that such a diet should be supplemented by meat,

eggs and milk. One of his particular claims is, that it is better to cook meat in some form of slow cooker. He says if heat is applied to a piece of meat too rapidly, one simply wastes fuel, and runs the risk of overcooking the outer layers. He describes several self-acting cooking affairs and recommends one that would take from twelve to eighteen hours to cook a fowl.

In speaking of infant food, he says, condensed milk should only be used temporarily, thus during digestive disturbances, or where fresh milk is unobtainable.

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A WORKING MANUAL OF HIGH FREQUENCY CURRENTS. By Noble M. Eberhart, A.M., M.S., M.D., Professor and Head of the Department of Electrotherapy, Chicago College of Medicine and Surgery; Professor of Radiotherapy, High Frequency and Vibration, Illinois School of Electrotherapeutics; Radiotherapist Francis Willard Hospital. Formerly Attending Physician Cook County Hospital; formerly Professor of Electrophysics Post-Graduate Medical School, Chicago. Member Chicago and Illinois State Medical Societies; American Medical Association; American Medical Editors' Association. Press Club of Chicago; Victoria Institute of Philosophical Society of Great Britain, etc. Fellow American Academy of Medicine; Fellow American Electrotherapeutic Association. Author of "Practical X-ray Therapy," "Brief Guide to Vibratory Technique," etc. Associate Editor American Journal of Physiologic Therapeutics; Electrotherapeutic Editor Therapeutic Medicine and the Medical Brief. Chicago New Medicine Publishing Co., Chicago Savings Bank Bldg.

The author says: "My intention has been to make this a practical hand-book for the busy physician who wishes to use high frequency currents." There are ten chapters occupying 299 pages. (1) Definition of High Frequency; (2) The Development of the Current; (3) Types of Apparatus; (4) Various Forms of Vacuum Tubes; (5) Physiological Action of the Current; High Frequency Burns. It is here stated: "High frequency currents do not cause a dermatitis comparable to that produced by the X-ray, but they are still capable of causing annoying surface burns. \* \* \* To avoid this I make it a rule never

to leave a vacuum tube in contact with a mucous membrane for more than seven minutes. I use the high frequency current to offset some of the effects of the X-ray, and by its use in conjunction with the latter, to enable a larger dose of the X-ray to be administered without a corresponding degree of danger." Chapter 6 is on General Technique and is replete with

information. One chapter is on Ozone and begins with the statement: "Whenever an electric spark passes through the air ozone is liberated." \* \* \* "Ozone increases the oxygenation of the blood and tissues, increasing oxy-hemoglobin and also increasing the red blood corpuscles." He then describes an ozone generator and how to employ it therapeutically.

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## MISCELLANEOUS

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### CLIMATE THERAPEUTICS.

The Los Angeles Daily Times of January 29th says:

A great medical work has just been issued by Lea and Febiger, the Philadelphia publishers. It is

#### MODERN TREATMENT

by American and English authorities. One extended section is devoted to "Climate Therapeutics," the author being Dr. W. Jarvis Barlow, founder of the Barlow Sanatorium of Los Angeles.

Dr. Barlow says, in part: "The resorts of Southern New Jersey and California are available the whole year; in fact, the resorts of Southern California are preferable, more equable, and comfortable in summer than in winter." . . . "The Southern coast of New Jersey represented by Atlantic City and Cape May, and Southern California represented by Santa Barbara and the beaches near Los Angeles (as Long Beach, Santa Monica, Ocean Park, Redondo, Hermosa and many smaller places), Catalina Island, and, farther south, La Jolla, Coronado Beach and San Diego are both cool in summer and mild in winter. California, of course, having the greater advantage climatically."

"The Southern California Coast has the advantage of being the driest marine climate, and during the summer months has no storms or rains and always cool nights. Health seek-

ers agree that the summer climate of these places is absolutely perfect, even the hot part of the few warm days is not perceptible on account of the dryness of the atmosphere. This dryness is due to the nearness of the desert, distance from storm centers and that the rain appears only in the winter months from November to March, so that the summer climate is drier than the winter, and makes the California coast climate, for at least one-half of the year, an exception to the usual type of ocean climate. I am equally enthusiastic over its equability, and believe no other coast approaches it for an all-year comfort and peace."

On this point read what the former professor in Kings College, London (Berney Yeo), says: "This coast, with the portion of the Pacific Slope lying directly behind it, possesses one of the most genial and equable climates in the world. It is under the influence of the warm ocean current from Japan, and ranges of high mountains from its northern boundary, the land sloping gradually down from the east to the ocean. It has mild winters and relatively cool summers, without extremes either of heat or cold. In the northern region of this coast the atmosphere is humid, and rainfall is considerable, but this diminishes as we pass southward, and there is a great difference between the climate of the



towns on the northern part of the coast and that of the resorts to the south." Dr. Barlow then goes on to describe the Atlantic coast resorts and those of Bermuda, Porto Rico and Cuba. He then says: "Finally, the most important winter resorts of this type are to be found in Florida and Southern California, both of which will bear comparison, each having advantages for certain classes of disease.

#### WINTER MONTHS.

Southern California—Whole year (summer even better than winter): Less rain and humidity; less moist and relaxing; often tonic; colder winter months; greater average of hours of sunshine; great diurnal changes; inaccessibility to eastern States; cold evenings and nights; chilly air currents; more wind and dust; semi-tropical vegetation by irrigation; much dry, barren country.

Florida—Short season (December to April): More rain and humidity; moist and enervating; warm winter months; less average hours of sunshine; slight diurnal changes; accessibility to eastern States; evenings like summer; balmy air currents; less wind and dust; rich tropical vegetation in abundance.

By examining these columns one can see that, to make a change for disease, California is far preferable. In general, the Southern California Coast is cool, equable, moist and bracing. Florida is warm, equable, moist and enervating.

Yuma, Ariz., altitude 140 feet, at the line of Southern California, near the Mexican border, is our best type of desert climate, and nearest the climate of Egypt. It is characterized by extreme dryness, pure air and abundance of sunshine. The section about Yuma has the lowest average rainfall during all four seasons of any region in the United States. The climate is comfortable and suitable from December to April; the average temperature is

60 deg. F.; average humidity 40 deg. F. Unfortunately, this town and the surrounding country are not properly equipped in any way for health-seekers or invalids.

A valley, recently made prosperous by the leasing of the part of the Colorado River, and situated in Southern California, has the same desert climate, where invalids can get limited accommodations. I refer to the Imperial Valley, which has wonderfully dry, equable conditions. Banning and Palm Springs, Cal., are similar climatic resorts of a desert type, situated on the west side of the Pacific Coast, and cut off from its humidity and rainstorms. Each has limited accommodations for pulmonary cases, and Banning has a small sanatorium.

Additional low types of Southern California partake more or less of the Coast climate, modified by nearness to this Colorado Desert, and depending upon this modification are the places suitable for all-year-round resort or as only suitable for winter. Places up to 1000 feet elevation, and within forty miles of the coast, are comfortable the whole year; the nearer the ocean, the cooler in summer and the warmer in winter, and vice versa. Fogs are numerous in the spring and summer months for a part of many days, extending many miles over the inland places—usually thirty miles and often fifty miles—and disappear earlier the greater distance from the coast. The days of summer without these fogs are often hot ones for these inland resorts. Sections beyond forty miles from the coast, or from 1000 to 3500 feet, are suitable only during the winter and spring months, November to June, as, according to the distance, they take on more of the desert and less of the coast factors. The separation of towns in Southern California, and the lack of accommodations and comforts, which were former drawbacks, are gradually disap-

pearing, and the counties of San Bernardino, Riverside, Los Angeles, Ventura, Santa Barbara and San Diego, which contain many health resorts, are gradually being populated in a most astounding manner.

Redlands, elevation 1200 feet, and Riverside, about 900 feet, seventy miles from the coast, are the two most attractive winter resorts to be found and are at one end of the San Gabriel Valley, which extends to Pasadena. Along this valley are several small towns, each of which is a delightful residential place, containing ranch homes boarding-houses, inadequately supplied for caring for invalids, but where no better climate can be found for the group of heart, kidney and circulatory diseases, or where the outdoor life is more agreeable and attractive.

People, to have the right care in Southern California, outside of a sanatorium, must be in a position to keep house or live with friends. Most of the numerous boarding-houses are not suitable for any except healthy people or those who can lead normal lives.

#### DIFFERENT ALTITUDES.

From Redlands down may be mentioned San Bernardino, Riverside, Ontario, Pomona, Claremont (college town), Azusa, Duarte, Monrovia, Sierra Madre, Altadena and Pasadena. Winter climates for low altitude of this group are Redlands, San Bernardino, Riverside and Ontario. The others are suitable for all-year-round residence, with some hot days in summer, when the temperature will reach 98 and 100, but the relative dryness always saves any great discomfort.

Monrovia, Sierra Madre and Altadena are at the base of the Coast range, with altitudes of 1000 to 1400 feet. Many invalids reside in these places, especially tuberculosis cases, that need low altitude treatment un-

der equable conditions. Sanatorium treatment may be had at Monrovia.

Pasadena, altitude 800 feet, nine miles from Los Angeles and twenty-five miles from the coast, is an excellent all-year-round place. It is, however, more suitable for winter seasons, and, on account of the local topography, has less fog than many sections equally distant from the ocean, is one of the most charming residential districts on the American continent, with beautiful homes and grounds, and altogether with Santa Barbara, the most popular for tourists. It is rapidly growing out of the resort class, but its outlying districts are still well adapted for invalids. Three miles to the east, at Lamanda Park, is an excellent sanatorium for nervous cases of the neurasthenic type, convalescents and patients broken down from physical or nervous strain.

#### LOS ANGELES.

Los Angeles is fifteen miles from the coast, and in consequence has cooler summers than Pasadena. Having grown to be a city of the larger class, with over 300,000 population, it has, therefore, all the disadvantages of a modern city, which has lessened its desirability as a health resort. Its climate, however, suits many chronic cases who become permanent residents, and its outlying districts or suburbs are filled with desirable and grateful patients. Farther north lies the Ojai Valley, a few miles from Santa Barbara, which belongs to this low altitude type. This valley is an excellent place for winter, spring and fall; hot in summer, but with climatic advantages for an ideal outdoor life, and with the disadvantages of inadequate accommodations and difficulty of obtaining food.

Nearer Santa Barbara are other valleys (Montecito), which are ideal the year round, and other places in the foothill regions which have strong ad-

mirers. An excellent sanatorium for nervous troubles and convalescents can be had at Santa Barbara. Near San Diego are the El Cajon and Lake-side Valleys, with ideal climates the greater part of the year. In the northern part of the State, near San Francisco, are protected inland places that serve many people. Santa Clara Valley is represented by San Jose, Los Gatos and Palo Alto; near the bay are Berkeley and Alameda. The conditions are comfortable and suitable the whole year.

Residence in a climate may make one too enthusiastic in its coloring, and it is pleasant to have my experience indorsed by the words of a European authority. Huggard says:

"Owing to the mildness of its climate, the moderate degree of its humidity, and the absence of extremes of heat and cold, Southern California is suitable for a greater variety of invalids than is any country of similar size in the world. The heat is seldom oppressive, and the cold is rarely so great as to be trying even to delicate invalids. The days, even when warm, are succeeded by cool evenings, which, to most people, form a refreshing contrast. There is no climate in the world without drawbacks, but fewer climatic disadvantages for permanent residence are probably to be found in Southern California than in any other country under the sun."

Medium altitude (1000 to 3000 feet)—whole year—resorts of this group are available and suitable the whole year, except those of Arizona (Phoenix and Tucson), which are only winter resorts.

#### ARIZONA.

Phoenix, Ariz. (altitude 1087 feet), is favorably located, and well-known for its mild weather, dryness, and great amount of sunshine. It is suitable in the late autumn, winter, and spring months (November to May), for all cases that need outdoor life in dry

air, and who, on account of some complication of cardiac, renal or circulatory system, are unsuitable for high altitude. It has, in common with all Arizona, the advantages of pure air, a great amount of sunshine, dryness, mild winters, and few bad storms. The greatest rainfall is in July and August; a little again during the winter months, but not much at any time, the annual mean being six or seven inches. The mean temperature for the three seasons is 53 deg. to 70 deg. The summers are entirely too hot for comfort and health or otherwise. Suitable and comfortable accommodations may be had, with excellent medical treatment. Tempe, a small town south of Phoenix, has the same climate without the other advantages.

Tucson, Ariz. (altitude 2400 feet), in the southwestern part of the State, shares the excellent climatic conditions of this State for winter months. On account of the altitude, it has the advantage of a more stimulating climate, for many cases, over Phoenix, and many who have spent the winter in both places speak more favorably of Tucson. It has the disadvantages of the shorter season, December to April, but my experience has been that pulmonary cases under as good care, during those months will do better in Tucson than Phoenix. Better accommodations are being yearly provided at Tucson, which formerly was its greatest drawback. Redlands, Beaumont, and Banning, Cal., might well be mentioned in this class as well as among those of the low inland types.

The high altitude resorts of Arizona are limited, and Prescott is by far the best and most important. These elevated regions have all the characteristic climatic advantages of the Rocky Mountain region, except that the winters are milder and warmer—altitude, dryness, great amount of sunshine, marked diurnal changes, mild winter, cool summers, and pure air. Mean



temperature, 60 deg. to 65 deg. F.; relative humidity, 30 to 50 per cent. Prescott (altitude 5260 feet), is practically the only all-year-round resort of high altitude in the State. It is a prosperous, growing town, but still retains much of the old mining ways. It has limited accommodations and a good sanatorium for tuberculosis cases. Both the winter and summer climates are excellent, and many health-seekers from lower altitudes go to Prescott for the summer months. Its location is protected from severe winds and dust storms.

Flagstaff, Ariz. (altitude 7000 feet), has an excellent all-year-round climate, cold and snow in winter, as occurs at Prescott, and cool days all summer, but as yet, there is no provision made for invalids; it is beautifully situated, with forests of pine, and the country is interesting for those who like the wonderful scenery and coloring of this land.

El Paso, Texas (altitude 3700 feet), is similar climatically to the southern part of New Mexico, but its situation

and lower elevation make the summers impossible for health-seekers. From November to May the climate is good for invalids. The air is cool, dry and stimulating, with a relative humidity of about 50 per cent.; there are limited accommodations, and a hospital and sanatorium for the tuberculous.

Southern California, in the mountainous regions, possesses the climatic conditions of high altitude without the disadvantages of wind and dust storms—San Jacinto and San Bernardino, Idyllwild in the Strawberry Valley on San Jacinto, and Bear Valley on San Bernardino, elevation 5200 feet. The climate is excellent the whole year; mild winters, with snow and ice, and cool summers; the air is tonic and stimulating.

Idyllwild has been closed as a health resort for several years, but good accommodations may be had during the summer for those who are not invalids, and a limited number of people can be taken in Bear Valley.

## TRANSLATIONS

### CURRENT LITERATURE.\*

[German. March, 1911.]

TRANSLATED BY R. L. CUNNINGHAM, M.D., LOS ANGELES.

The wealth of excellent material in the recent papers appearing in late numbers of the various German periodicals makes selection more than hard, for the past month has brought to notice an unusually large number of articles suitable for review. It will be necessary to confine our present attention to the merest mention of many papers and reports which it would be profitable to consider in more extensive detail. To those interested in special departments the reference may be helpful.

In the *Deutsches archiv für Klinische Medizin*, Vol. 101, parts 5 and 6, are several articles of value. The first is an extensive and comprehensive work upon "The Anatomy, Histology and Physiology of the Vagus Nerve," by Dr. L. R. Mueller. It is amply furnished with diagrams, drawings and histological illustrations, and takes up the various functions of the Vagus in detail.

The second paper in this number of the above mentioned publication is by E. Scheidemann, and is a report

\*Read before the Los Angeles County Medical Association at the meeting of March 31, 1911, from German.

upon the "Specificity of the Wassermann Reaction" based upon 1212 cases tested, more than 2-3 of them clinically and in history free from Syphilis. A great variety of conditions is included in the list reported. The technique is discussed and the relative values of different grades of reaction, the incidence of autolysis, incomplete haemolysis, etc. It will suffice to give in brief his conclusions:—(1) A strong positive Wassermann reaction is almost specific for Lues and is equally as safe as our best biological methods. (2) Incomplete (weak reaction, the positive) haemolysis may appear in connection with hyperpyrexia and in debilitating affections such as tuberculosis, malignant neoplasms and diabetes, though infrequent except where the general condition is seriously disturbed, and generally to be referred to lues. Only by most careful reference to the clinical picture can a doubtful reaction be considered as positive. (3) Markedly icteric serum is not to be used, on account of autolysis. (4) A single negative reaction has no value as proof that the condition is not Syphilis. (5) In the interest of certainty standardization of methods and of reading is desirable.

Ebner reports the result in 611 cases of appendicitis operated upon at Koenigsberg, classifying the series as to time of operation, operator, the pathological condition found, post-operative history, duration of treatment, and mortality. His tabulated results are easily read and conveniently arranged. The conclusion is in favor of operation between acute attacks.

In the same number P. Geipel reports two cases of aneurysm of the ascending arch of the aorta perforating into the pulmonary artery and reviews those cases of this rare condition already reported in the literature.

Prof. H. Hochhaus contributes a paper to the same publication from the "Akademie fur praktische Medizin" in Cologne, on the use and value of pectoral fremitus in the diagnosis of diseases of the respiratory system. While there is nothing particularly new in this paper it is one which will interest those who are frequently obliged to interpret thoracic signs.

O. Prym gives some 20 pages to a critical discussion and report upon the Sahli-Seiler test breakfast, an article which will attract those interested in gastric conditions especially.

Since the first announcement of the use of Stovain for the purpose of producing general anaesthesia when introduced into the spinal canal (1909) the method has been used more or less as an experimental procedure, at least so it has been considered in this country. In the DEUTSCH MEDIZINISCHE WOCHENSCHRIFT for March 2nd, 1911, Thomas Jonnesco, of Bukarest, the first to use this particular method, reaffirms his first statement on the subject. He gives a full description of his technique, location of puncture of the canal, the solution used, etc. He goes into a somewhat extended discussion of the many objections urged by other workers against the method, and disposes of all, to at least his own satisfaction, so that he says there is no contra-indication to the use of his spinal anaesthesia. He bases his own knowledge of the matter upon the experience gained in 5907 cases, partly his own and in part supplied by associates or friends. His own operations included craniotomies, operations on the head and neck, thyroidectomies, amputation of the breast and complete breast operations, laparotomies with operations on stomach, and intestines, splenectomies, and operations on the liver, hysterectomies, herniotomies, and operations on the kidney,

bladder, rectum, pelvic floor and upon all extremities. In age the patients ranged from 1 month to 82 years. Seven times he observed sudden interruption of respiration, all of which were relieved by artificial respiration at once. In two cases death followed the injection of the drug into the upper portion of the canal, in both cases the dose being much greater than he himself had recommended. In two years he has used no other method of anaesthesia and has no death to regret as being due to the drug. In conclusion Jonnesco asserts emphatically that general spinal anaesthesia, on account of its simplicity, safety and universal applicability, will displace all other methods of narcosis.

In the special subject of tuberculosis, many contributions have appeared. Lucius Spengler, in the *MUENCHENER MEDIZINISCHE WOCHENSCHRIFT* for February 28th, 1911, reports the results obtained in 15 cases of pulmonary tuberculosis treated by the artificial production of a pneumothorax. The time since treatment varied from 9 months to 4 years. In one case the pneumothorax was maintained for two years. He claims better results than have been obtained by any other method in use heretofore.

Moellers, in the *DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT* for February 23, 1911, discusses the occur-

ence of various types of tubercle bacilli, especially the so-called bovine and human types, in the sputum of tuberculous patients. His observations are entirely in favor of the universal occurrence of the human type. In the same number of this journal, Jacoby (Berlin) describes his method of treating pulmonary tuberculosis by hyperaemia, that is by placing the patient in a position with the foot of the bed or reclining chair raised, presumably causing a temporary hyperaemia localized to the upper portions of the body, and therefore maximum in the pulmonary circulation.

Fritz Bredow, again in the same number, discusses the "muscle-rigidity" sign described by Pottenger, as applied to diagnosis of intra-thoracic conditions. He doubts the value of the sign as an aid in the early diagnosis of disease of the lungs.

In the same Journal, but in the number for March 2nd, 1911, there is an excellent article by Krause, Loewenstein, and Volk, upon the "Mechanism of the Tuberculin Reaction." This being of only special interest, it will not be reviewed here.

New articles and reports upon Salvarsan continue to appear, but their conclusions in the main, follow so closely with those already quoted in this society, that further notes need not be brought at this time.

### TRANSLATIONS FROM THE FRENCH.

#### A LATE REPORT ON THE ABORTIVE AND CURATIVE TREATMENT OF SYPHILIS BY HECTINE. BY M. H. HALLOPEAU.\*

[Bulletin de L'Académie de Médecine, 17 Janvier, 1911.]

BY DR. ANDREW STEWART LOBINGIER.

This is a supplementary report of ten additional cases to a former analysis of fifteen cases published in the Bulletin on a former date.

The author makes a comparison with Salvarsan and believes that hectine

is safer, more efficient and reliable in its action than 606.

Since Mouneyrat discovered hectine many able men have used it with varying results but in the main its efficiency has in M. Hallopeau's opin-

\*Read before the Los Angeles County Medical Association at the meeting of March 31 1911.



ion been so well established he felt justified in presenting this report to the Academy. He concludes thus:

WE repeat we cannot draw any conclusions from these facts. WE desire only to call the attention of the academy to the important question. WE have formulated the following conclusions from this work.

1—The abortive treatment of syphilis can be limited to thirty injections into the neighborhood of the primary infection.

2—It is not necessary to administer simultaneously intra-gluteal mercurial injections.

3—It is necessary to condemn the use of oxycyanide of mercury as a local treatment on account of accidents which it may produce.

4—The hectine of Mouneyrat remains the only useful medicament for this cure.

5—The successes of this local cure, if practiced by established rules, are constant.

6—If there have been failures they

must be attributed to the employment of a different technique.

7—If recovery is complete one may authorize marriage at the moment where the Wasserman reaction proves negative.

The general use of this method of treatment would prove an important factor in the growth of the population; for on the one hand it would diminish the mortality from syphilis, particularly that which entails general paralysis and tabes and syphilids of the vessels and of the viscera hereditary syphilis, etc. On the other hand it would increase in considerable proportion the number of daily births when procreation would be permitted after thirty days of treatment. We have no need to authorize the great interest which these facts present.

M. Gaucher thought on account of the extreme importance of M. Hallopeau's assertions and on account of the interest excited here and the wide exploitation in all the journals the Academy should refer to a committee the examination of this question proposed by M. Hallopeau.

#### AN ATTEMPT AT DRAINAGE OF ACITES INTO THE SUBCUTANEOUS CELLULAR TISSUE. BY M. MAUCLAIRE OF CHARITE.

[Archives Générales de Chirurgiè.]

1—Mauclaire considers Tolma's omentopexy. He had a number of cases in only one of which was the recovery approximately satisfactory. He quotes Fabre who urges proper estimate of hepatic insufficiency before resorting to Tolma's procedure. He believes the indications for Tolma's omentopexy therefore extremely limited.

2—By hepatopexy, Cholecystopexy splenopexy surgeons have sought to obtain a vascular anastomosis by adhesions between the portal and the vena cava systems. They have derived this operation from the principles of Talma.

3—By the anastomosis of the ovarian and the superior mesenteric veins after Villard and Tavernier.

4—By direct anastomosis of the Portal Vein with the fistula of Eck. A very difficult procedure in man. This was once performed by Vidal but the patient died of pyemia.

Finally by subcutaneous drainage by a T tube. This is accomplished by stitching the stem of the tube within the peritoneal cavity and the cross portion buried within the subcutaneous fat. His first patient was operated on in December, 1909. It was a case of advanced cirrhosis of the liver, aet. 51. Twenty litres of fluid were re-

moved previous to the operation by aspiration. The stem of the drain was carried into the pelvis and the horizontal portion brought out under the skin and the latter closed over it. The patient vomited incessantly from the chloroform and died the third day. There were extensive hemorrhages from the mucosa of the stomach and intestine. Mauclore believes that if he had operated with local anaesthesia his patient would have recovered. He had hoped by this technique also to secure an auto-serotherapy such as is obtained in pleurisy and to test this therapy in cirrhosis.

Six cases are reported, three cirrhosis of the liver, two of carcinoma in the abdomen and one of tubercular peritonitis. All succumbed within a few days following this operation except the patient suffering from tubercular peritonitis, from whom later he had to remove the rubber drain.

The author cites Jaboulay's and Lambottes Technique, the first dragging out the omentum under the skin, the latter using a silk thread

between the abdominal cavity and subcutaneous tissue. These methods like his own were attended by very indifferent success. Evler allowed an abdominal incision to remain open except for the skin which he closed over, in a case of tubercular peritonitis. This case did well although several fistulae persisted for a time but ultimately closed.

Handley operated five times by what he termed the crural method i. e. through the crural canal. The peritoneum is sewed up to the pillars of the external ring and the skin is closed over. Hernia will certainly occur should adhesions not early obliterate the opened canal. Handley has employed what he terms a "lymphangioplastique" technic whereby he passes silk threads from the peritoneum out under the skin at the anterior superior spine and downward under the skin of the thigh. This resulted favorably and the asites practically disappeared. He had fifteen of these cases, with, in several cases, decidedly favorable results. Several months were required to effect a cure.

#### OPERATIVE TREATMENT OF ANGIO-CHOLECYSTITIS DURING OR IMMEDIATELY FOLLOWING TYPHOID FEVER. BY M. QUENU.

[*Revue de Chirurgie*, Février, 1911.]  
M. Qüenu.

In 1908 Qüenu collected 45 cases of which he gave a critical study in the *Revue de Chirurgie* 1908, XXX. P. 828. In the present number he adds two cases then overlooked, one by Kanzel and one by Longuet and 20 others collected since the 1908 report.

Of these 22 cases 9 were observed during the course of the disease and 13 during convalescence. In the first series reported the percentage of deaths was 31.80. Some of these operations were incomplete and if these are eliminated it leaves a mortality for the first series of 22%. Seven deaths and fifteen recoveries.

In the second series 20 out of 22 were complete operations and excluding the 2 incomplete leaves a mortality of 25%, 5 deaths and 15 recoveries.

In the first series of 45 cases stones occurred in the bladder or gall ducts in 13 cases. In the second series 10 times out of 22 cases. This gives calculi as occurring in over 33%.

The author considers the question as to the origin of gallstones. He cites the view of Rakitsky that stones form during the Typhoid infection in a few weeks and doubts this since stones are not present in acute cholecystitis. Mignot found that it re-

quired intense bacterial infection to produce even a deposit of biliary sediment and Duranton found it required 45 days to produce crystals of cholesterolin. The author calls attention sharply to the significance of the experimental observations and reminds us that there is a very great difference between these crystals and true gallstones. Besides in true gallstones the gall bladder is denser and thicker than normal or than is found in acute cholecystitis. The presence of stones during an Eberth infection undoubtedly intensifies the acuity of the cholecystitis. We must remember also that the Eberth bacillus is associated with ulceration. This is as true of the mucosa of the gall bladder as it is of the ileum.

The indication for surgical intervention will be such as would lead one to operate on the vermiform appendix. Pain, rigid rectus, polymorphonuclears, relation of the leucocyte count to true typhoid and to purulent infection, clinical evidences of perforation or of a localized peritonitis, all these will be governing factors in deciding on surgical intervention. Quenu's dictum here, as in acute appendicitis, would be to have a surgeon in attendance whether operation is indicated or not; it may be imperative at any hour. The technical indications will depend on the pathologic conditions. Ordinarily cholecystotomy is the measure of choice. In necrotic change with or without perforation cholecy-

stectomy, partial or total, must be performed. The presence of jaundice may be due to occlusion of the hepatic ducts. Should cholemia persist beyond two weeks without clearing in acute typhoid angio-cholecystitis, with increasing hypoazoturia and intoxication we must interfere surgically just as we would do were such an infection present without the typhoid complex.

## THERAPEUTICAL HINTS

Digalen—Hoffman La Roche—is indicated in pneumonia in the asthenic stage, when the heart needs supporting and the physician's chief anxiety is to keep the heart "going strong." Similarly in acute infectious fevers, in the tachycardia of exophthalmic goitre,

loss of compensation following chronic endocarditis, as a diuretic in dropsy, and in any affection where it is necessary to tone up the heart muscle, Digalen will prove reliable and efficient. In chronic diseases in which hypoleucocytosis is present, the action of Dig-

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alen in producing hyperleucytosis in a marked manner is worth remembering.

The average dose is 8 to 16 M. ( $\frac{1}{2}$  to 1 cc.) 3 times a day. If chronic conditions the necessity of each individual case must be considered, after the physiological effect has been once established. The intravenous injection manifests its action within a few minutes. When given by the mouth the effect is much slower and takes 24 to 36 hours to obtain full effect, and this is an important fact to remember in treating acute affections.

Any remedy that lightens the burden of women during the menopause, is much to be esteemed. Such a remedy is neurilla, the action of which is that of a nerve equilizer or pacifier in all conditions of nervous unrest,

whether it be in the convulsion of children, or the chronic restlessness of older people. In all such conditions it may be considered as well nigh a specific.—Massachusetts Medical Journal.

The Procreation Bill has passed the House and Senate of Iowa, and will become a law upon receiving the governor's signature. This bill provides for the sterilization of convicts, idiots, imbeciles and feeble minded persons, according to the "Indiana plan," which has been described in detail in the Herald. The state will have direct charge of the enforcement of the provisions of the bill. Habitual criminals confined in the penitentiary of the state and who have been convicted of felony more than three times are liable to the provisions of this law.

## CALIFORNIA HOSPITAL ALUMNAE NOTES

We have been absent from our corner for quite a while but we are very glad to be "at home" again and we hope now to meet our Practitioner friends regularly every month.

The time of graduating exercises in our various schools and hospitals is at hand.

To us the most interesting have been those of our own California Hospital Training School from which a class of twenty-nine nurses, two of them male nurses, has just been graduated.

The members of this class have certainly been very fortunate in the attention which they have received from various members of the Hospital staff, the first being a dinner for the superintendent and class, by Dr. and Mrs. Walter Lindley, at their home on Figueroa street.

The superintendent of the Whittier State School had the superintendent

and graduating class out there by special invitation on May 19.

They were shown through the boys' department and then taken to the girls' department, where a fine dinner was served, the girls giving them a pleasing musical entertainment during the dinner hour. After dinner they returned to the boys' department and listened to a very instructive program by the boys.

On the evening of May 26, Dr. and Mrs. Beckett had the junior and senior classes, head nurses, clerks and assistant superintendent out for an informal evening at their home.

The Commencement Exercises were held at the Gamut Club Hall on the evening of June 1. The oration was delivered by Mr. Gurney Newlin and Dr. Ethel L. Leonard addressed the class on behalf of the Faculty, while Dr. W. W. Hitchcock, vice-president of the hospital, presented the diplo

mas to the class and the superintendent, Miss Williamson, presented the California Hospital pins.

This is the largest class ever graduated from our hospital and the quality is fully equal to the quantity.

The California Hospital Nurses' Alumnae Association welcomed the graduating class with a banquet at the Mt. Washington Hotel, on Thursday evening, June 8th, but of this, more in our next.

Miss Alice Dougherty, '09, who took a post-graduate course in one of the New York City hospitals last year has just taken a hospital position in Jerome, Arizona. While in New York Miss Dougherty took the state examination for nurses and she is now authorized to write R. N. after her name. We congratulate her.

The failure of Governor Johnson to sign our California Nurses' Registration Bill, after it had successfully passed both houses was a bitter disappointment to California Nurses. We must now wait two long years and then fight the battle for state registration all over again, but let us see to it that no such omission occur again.

Mrs. Della Ensign, '08, has taken a position in the German Hospital, and was in charge of the hospital while the superintendent, Miss Caroline Jantzen, '07, took her vacation.

Miss Elizabeth Barbour, '04, has just returned from a delightful trip with a patient to Honolulu and Japan. We are always glad to know of a nurse having such a treat as that.

Miss Ida M. Ambrose, '04, is now in Germany with a patient who has taken her little child over there to a noted oculist for treatment. A very pleasant and profitable way to take post-graduate work.

Miss Maude Rosseau, '03, has taken a position in the Calumet and Arizona Hospital, at Bisbee, Arizona. Miss Carrie M. Stimmel, '02, has been superintendent of this hospital for several years.

Miss Marian Roberts, '08, who took a patient to New York, recently, has just returned to Los Angeles.

Miss Kathryn Kenny, '04, was married in May to Mr. Swett, formerly a nurse in the California Hospital.

Miss Fannie Hersey, '05, has just returned from a visit in Canada. Miss Hersey took a patient to Baltimore, Md., and visited her Canadian friends on her way home.

The meetings of the American Society of Superintendents of Training Schools for Nurses, and of the Associated Alumnae of the United States are being held in Boston, Mass., this week, May 29 to June 3, inclusive. We are glad to have our Alumnae Association represented by Miss Minnie Allen, '09. The Board of the California Hospital contributed twenty-five dollars towards the expenses of a delegate.

We certainly appreciate this token of kindly feeling from our Alma Mater and hope that we may be more and more closely united in our work as the years go by. The California Hospital Alumnae Association was the only Association from California represented by two delegates at the Convention in New York last year, and we were highly complimented by the National Officers. The meeting this year is the most important, perhaps, since the National Association was organized, as a new name and a new constitution involving many radical changes will come before the members for discussion and perhaps be adopted, at this time.

**POISONING GROUND SQUIRRELS.**

The California ground squirrel is a disseminator of bubonic plague, and as a destroyer of fruit and grain is attracting much attention. It also injures vineyards by eating the young shoots and destroys orange and other fruit trees by gnawing off the bark.

The United States Department of Agriculture through the Bureau of Biological Survey, has issued a bulletin, circular 76, giving much information on this subject.

Following is the formula perfected and recommended by the Biological Survey for poisoning:

**STARCH-STRYCHNINE FORMULA FOR COATING GRAIN.**

Barley, clean grain, free from  
other seeds .....20 quarts  
Strychnia sulphate (ground or  
powdered) ..... 1 ounce  
Saccharine .....1 teaspoonful  
Gloss starch (ordinary laundry  
starch) ..... $\frac{1}{2}$  teacupful  
Water ..... $1\frac{1}{2}$  pints

Dissolve the starch in a little cold water and add  $1\frac{1}{2}$  pints of boiling water, making a rather thick solution. While hot, stir in the strychnine and mix until free from lumps; then add the saccharine and beat thoroughly. Now pour the poisoned starch over the barley and stir rapidly until the poison is evenly distributed; then allow the grain to dry. When dry it will keep indefinitely without deterioration.

For ordinary quantities a galvanized-iron washtub is an excellent receptacle in which to mix the grain with the poisoned starch; but when large quantities are needed the mixing may be done in a water trough with a shovel and hoe.

**PUTTING OUT THE POISON.**

The poisoned grain should be scattered (not placed in heaps) on clean hard places about the colonies—on the squirrel trails between the holes, along fences, and roadsides, and in other places frequented by the squir-

rels. Poisoned grain falling in soft dust or in foxtail grass or other dense cover is wasted.

**THE BEST TIME TO POISON GROUND SQUIRRELS.**

A weighty factor in determining the success or failure of poisoning operations is the time of year at which the work is done. The best season for poisoning is the dry season. This varies in duration from year to year, but on the average begins in April and continues until the middle or end of October.

**BISULPHID OF CARBON**

Crude bisulphid, suitable for killing ground squirrels, prairie dogs, and other burrowing animals, costs about 8 cents per pound in 50-pound cabbos or drums. It is a volatile liquid and rapidly loses strength on exposure to the air; hence, it should be kept in tightly corked bottles or cans. It should not be introduced haphazard, but should be used only in burrows where the animals have been seen to enter immediately before it is applied, so that none may be wasted. It should be employed in the following manner:

A tablespoonful of crude bisulphid should be poured on a piece of horse manure, corncob, cotton waste or other absorptive material; this should be thrown as far as possible down the burrow and the opening closed immediately. Bisulphid can be used to best advantage after a rain, when the interspaces in the soil are filled with water, so that the fumes are less readily diffused into the surrounding ground.

In colonies where the holes are close together half an ounce of the bisulphid is enough for each burrow, but in the case of solitary burrows a full ounce should be used.

In a field demonstration conducted by the Biological Survey, 492 holes were treated with bisulphid. The quantity used was  $3\frac{1}{2}$  gallons, and



“a successful remedy is not born complete in the mind of the manufacturer.

The idea might have been conceived therein but its success depends solely upon its therapeutic value and its adaptability to the requirements of the profession.

The idea was conceived that a more hygienic, adaptable and satisfactory method could be devised for maintaining continuous hot moist heat in the treatment of inflammations, both acute and chronic, than by ancient poultices, hot packs, etc.; antiphlogistine, the original cataplastic dressing was the result.

That antiphlogistine has proven its therapeutic superiority and adaptability and maintained its popularity over other products or methods in the treatment of inflammation is best attested by the continuous confidence accorded it by the medical profession.”

two men were employed for one day in putting it out. Every squirrel in the colony was killed.

At 10 o'clock on a bright spring morning in 1616, says Dr. Osler in a recent work, an unusually large company was attracted to the new anatomical hall of the Physicians' College, London. The second lecture of the annual course, given that year by a new man, had drawn a larger gathering than usual, due in part to the brilliancy of the demonstration of the previous day but also, it may be, because rumors had spread abroad about strange views to be propounded by the lecturer. The center of attraction is the lecturer, a small, dark man, wand in hand, with black, piercing eyes, a quick, vivacious manner and an ease and grace in demonstrating which bespeaks the master. The "small, dark man," with the "black, piercing eyes," was William Harvey, and he was about to make to the world the announcement of his immortal discovery of the circulation of the blood. From very early times physicians were aware of the fact that the blood is not stagnant in the veins. The fact was known to Homer and to every augur who inspected the entrails of a victim, and every village leech who "breathed" a vein; but no one had a conception of a continuous stream starting from the heart and returning to its source. If they used the word "circulation" it was only in the vaguest sense. It was Harvey who, on that bright spring morning gave the world the knowledge it had been groping for through the centuries—the solution of the "most difficult and fundamental problem in physiology." And not the least wonderful part of the story is the fact that the immortal solution as given by Harvey was "almost perfect." The only thing that he failed to find was the

capillary channels, by which the blood passed from the arteries to the veins. This gap in the circulation was supplied by the great anatomist Malpighi in 1661, and after that there was absolutely nothing more to be added.

Statistics just published for February, 1911, show the total mortality of that month in London to have been 17.6 per 1000 inhabitants living. The rates vary widely in the different districts and boroughs. In February, the highest were 27.6 in the old city of London and 24.3 in Shorditch at the east end; and the lowest, 10.2 in Hampsted and 12.4 in Greenwich, both situated at the periphery of the city.

A correspondent of The Lancet offers the following new alternative method of converting degrees Centigrade into degrees Fahrenheit, which may be found easier to perform mentally as the figures can be more easily retained in the memory—viz., multiply by 2, deduct one-tenth of the product, and add 32. Example, (a)  $30^{\circ}\text{C.}=86^{\circ}\text{F.}$  Method:  $30 \times 2 = 60$ .  $60 - 6 = 54$ .  $54 + 32 = 86$ . Example, (b)  $37^{\circ}\text{C.}=98.6^{\circ}\text{F.}$  Method:  $37 \times 2 = 74$ .  $74 - 7.4 = 66.6$ .  $66.6 + 32 = 98.6$ . Example, (c)  $40^{\circ}\text{C.}=104^{\circ}\text{F.}$  Method:  $40 \times 2 = 80$ .  $80 - 8 = 72$ .  $72 + 32 = 104$ .—Lancet-Clinic.

When the International Congress on Tuberculosis meets at Rome next September, representatives of over thirty national and provincial associations organized to fight tuberculosis will be present. Among the associations which will be represented are the United States, Canada, Cuba, Trinidad, England, Wales, Ireland, Norway, Sweden, Denmark, Russia, Germany, Belgium, Holland, France, Switzerland, Portugal, Italy, Greece, Bulgaria, Hungary, Austria, New Zealand, Japan, Cape Colony, Argentina, Brazil, Chile, Newfoundland, Roumania, Uruguay and Venezuela.

# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, JULY, 1911.

No. 7

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## BELLADONNA TREATMENT FOR DRUG AND ALCOHOLIC ADDICTION.

BY DR. ROSS MOORE, LECTURER ON NERVOUS AND MENTAL DISEASES, L. A.  
MEDICAL DEPARTMENT, UNIVERSITY OF CALIFORNIA.

For years the management of addiction to drugs and alcohol has been disappointing to me because the methods I had been taught were manifestly inadequate.

The fault in the older method lies along two general lines: First, inability to secure the definite removal from the system of the drug or drink, and second, inability to secure and maintain a period of after-care sufficiently long to fix the patient in his new stimulant- or narcotic-free physiological equilibrium.

The *slow* removal of opium always left the craving for the drug unrelieved, and permanent results depended less on the physician in charge than on the ultimate will fibre of the patient. To make a permanent recovery a man had to be a little stronger than the average, or had to have behind him a very great external stimulus, such as family or personal honor, or fear of business loss or failure.

The *rapid* or *sudden* removal of alcohol or drug from a system accustomed to a constantly maintained supply was too frequently accompanied by serious or even fatal consequences.

If by hook or by crook a case was successfully taken away from the drug or the alcohol, the chances were at least even that the patient would slip from the observation of the physician before he was strong enough to go back into his usual life. This would place him again in the conditions which originally gave rise to the habit, and it would be only natural for him to slip back into it again. This is essentially a hopeless outlook for a large per cent. of alcoholics, and for the average drug patient. It is also a very uncomfortable outlook for the therapist who wants a permanent cure for his patient.

During the last year I have personally treated the following varieties of habituation with this "Belladonna" method, viz: Morphine by hypodermic, morphine

\*Read before the Los Angeles County Medical Association, May 5th, 1911.



by mouth, opium smoking, opium by mouth, Hen-Shi eating, heroin by hypodermic, steady whiskey drinking, steady wine drinking, dipsomania, and finally tobacco chewing. The persons taking the treatments fall into the following classes: degenerates, rounders, weak moral characters, cranks, idlers, and business people. The degenerates, weak moral characters and cranks were taken largely for experimental purposes, as no hope for permanent success in such cases could be entertained. My series of cases is yet far too small to permit of generalizations, so I shall confine myself to a statement of the technic developed in giving the derivative treatment and a consideration of the after-care.

As is generally known this Towne-Lambert treatment consists in the hourly administration of a mixture of Belladonna, Hyosciamus and Xanthoxylum, in connection with increasingly vigorous catharsis at stated intervals. At the end of this course a so-called "Typical Stool" is obtained, and the patient emerges into a very unusually comfortable condition with little or no craving remaining.

There are several points to be noted about this vigorous derivative treatment. The Belladonna mixture must be pushed to the physiological limit and not beyond. Atropin poisoning must be sighted but not reached. To fall short of this point spells failure to actually obliterate the craving; to overstep it means bringing the treatment to an abrupt end, with prospects bright for having the patient refuse any further attempt at treatment. I have known confirmed opium users to drop off to sleep in entire comfort directly after the final castor oil movement, or so-called typical stool; the craving being quite gone for the first time since the habit was begun. And on the other hand I have seen instances of very violent atropin delirium when, through careless nursing, the first symptoms of the physiological effect of atropin were not noted. Also when the

dosage was not increased to the proper limit cases have run on for seventy-five to ninety hours and finally have had to be given up for the time being because of stomach irritability. On paper, this treatment looks easy, but in reality its technic is complicated and difficult.

Now, why does the craving disappear after thirty or forty hourly doses of this mixture when properly given, and why does it reassert itself with redoubled violence if the bounds of physiological tolerance are either over or under-stepped? If the treatment is given in the prescribed manner and the prescribed stool is secured a condition of comparative comfort follows. In drug habitues no diarrhea develops, and pain—the usual cry of the nerves for the drug—is small or entirely absent. A recent patient who had been taking twenty to thirty grains of morphine and six to eighteen grains of cocaine per day took the treatment quite typically. After the final castor oil stool he was made very comfortable during the first twenty-four hours with twenty-five grains of codein and was off all drugs in a few days thereafter.

In the case of opium and its derivatives and other narcotics, I believe that a physiological-chemical combination between these substances and atropin takes place when they are introduced into the body together. How else can the antagonistic action of morphine and atropin be explained? If this is so, then, when atropin is introduced into the system of an habitue in gradually increasing doses, this same reaction takes place. Possibly at the same time the drug to which the patient is addicted is loosened somewhat from its lodging place in the system. Vigorous and properly timed catharsis carries out both drug and atropin. The atropin is certainly carried out, for frequently the dilated pupil, dry mouth, etc., caused by the atropin will disappear within an hour or so after the typical stool appears; the opium seems to go with the atropin. Therefore, the measure of success with this method is the thorough-

ness with which the system is saturated with atropin, the chemical combination with the opiate following as a matter of course, and the catharsis removing it from the system.

The craving does not return after a successful treatment because little or none of the drug is left in the system to cry for more, the physiological craving being simply the result of an under supply of the drug in a system accustomed to a regular amount.

I have no good theory by which to explain the results of this treatment when applied to alcoholism. It is probably due more to the vigorous and increasing catharsis than to any specific action. However, it is well within the truth to say that twenty-five or thirty hours of this treatment furnishes the best foundation for a cure of alcoholism, and that the use of this mixture is of definite aid, both physiologically and psychically.

This brings us to the subject of the after-treatment. To my mind this is as important as the intensive, preliminary treatment. So important is it that I refuse, except in the rarest instances, to take cases unless I can retain supervision over them for at least six months after the active treatment. Every drug or alcoholic habitue has an internal bodily economy which has adjusted itself to a steady supply of the narcotic or the alcohol. To take this away and throw this wobbly, one-sided physiology suddenly on its own resources is to invite a quick return to the addiction. The case is only half cured when the craving is obliterated. Every phase of existence in the life of the rescued one is to be scrutinized and adjusted to the new order of things. This must be done by some one else than the patient. His own family know little of how to help him. Frequently they have fairly to be fought because of their unconscious or wilful misunderstanding of him. Especially is it necessary for the physician to make a clear-cut psychic analysis in each case, for worry or nerves or sorrow lie at the

foundation of most addictions in persons not degenerate. This thorough analysis is necessary because often the patient will not retain in consciousness the particular adverse circumstances which underlie his habit. Alcohol-free tonics must be prescribed. A return to full work is necessarily gradual in order that physical and nerve tire may never occur. Six months is not too long a time to hold these patients under watch.

To secure this supervision it is my practice to make a definite agreement at the beginning of the treatment with the patient, his guardians and friends, covering a period of months, during which time regular reports are to be made to me or his regular medical attendant. It is distinctly understood that if the report is not made according to agreement the physician will take it upon himself to look him up, just as a surgeon would hunt up a patient who should have an important dressing done, and who did not appear at the stated time. A careful physical examination is made. The friends who are to be most with the patient after the derivative treatment are made to understand the theory and practice of after-care, and their antagonism, petty nagging, etc., are changed into definite helpfulness. The patient must understand in a new way the things that have brought him down. It means a moral as well as physical revolution to secure permanency.

The agreement for some months of after-care includes a definite understanding that the fee paid for the treatment pays for the after-care as well. This makes it easier to keep track of these patients, because there is no fear of running up further accounts. He can be looked up if he does not appear according to orders, and will not feel that the physician is overstepping his authority in keeping after him.

This paper is not satisfactory to me because there have been too many phases to be taken up well in the time allotted. In conclusion I will try to point out the

particular features which have impressed themselves on my mind as a result of experience had with the above described methods during the last eighteen months:

1. The technical difficulties in giving the Belladonna treatment are much more real than apparent.

2. Properly given it will totally eradicate the physiological craving for narcotic drugs.

3. The vigorous elimination secured by this method makes it the best preliminary

treatment for the cure of alcoholism.

4. To secure permanent results it is necessary to pay as much attention to the after-care in both alcoholic and drug cases as is given to the derivative treatment.

5. This after-care consists in regular supervision over several months, and a thorough understanding of the needs of the patient by both himself and his friends.

Fay Building.

## THE CHANGING TYPE OF GENERAL PARESIS.\*

BY CHARLES LEWIS ALLEN, M.D.

It is less than 100 years since the clinical picture of general paresis was first clearly drawn and even up to the present there remains some confusion on the subject. While the importance of early diagnosis is very great, its onset, frequently insidious, fails to bring to the attention of those unfamiliar with this disease, the gravity of the condition which is impending. Formerly we were accustomed to picture a typical case of general paresis as beginning with nervousness and slight depression with gradual failure of the muscular power. Tremor, speech disturbances and pupillary changes soon supervene and the case next presents the picture of motor and mental excitement with delusions of stupendous grandeur, unsystematized and changeable, increased feeling of self-importance, the mood one of happy abandon and blessed oblivion to impending fate, while physically the victim is visibly tottering to the grave. The end stage is one of bed-ridden imbecility with termination by death in marasmus, unless the patient perishes in a convulsive attack, or through some intercurrent disease. Such is in outline the picture of the so-called classical

general paresis which in former years was the leading type of the disease. Though the simple dement type was long ago recognized and described, cases of this kind have been steadily growing more frequent, until today they form the great majority of those encountered, the classical type being the exception rather than the rule. Further than this, it has seemed to the writer, that of late years the cases in which the somatic signs long antedate the mental symptoms have been becoming increasingly frequent, and it is to call attention to the often insidious onset of the disease, with few or no mental symptoms for a long time, that this paper has been written.

To trace the symptoms of general paresis in more than outline is not intended here, as it is presumed that most of those present are familiar with them, but it will be permissible to recall briefly some points with regard to them. The cardinal symptoms which suggest to our minds that we have to do with a case of the disease in question are, alteration of the pupillary reaction, speech disturbance, with weakness or inco-ordination of muscular action and alteration of the reflexes

\*Read before the Los Angeles County Medical Association, May 5, 1911.



combined with mental change in the direction of deterioration. That the physical symptoms may precede any pronounced mental change by a considerable time it is desired to emphasize most strongly. The presence of one or more of them in a patient who appears to be failing in health and gives evidence of nervous breakdown should put the physician on his guard and should make him watch carefully for signs of mental deterioration, especially if there is a history of previous syphilis. The failure of the pupils to react to light while they still react for accommodation (Argyll-Robertson pupil) is a symptom common to general paresis, tabes and cerebral syphilis and only rarely found in other diseases. This usually begins as sluggishness in light reaction, complete loss not occurring until later. In connection with lost knee jerk it is equally characteristic of tabes and of tabo (paralysis.) Berkeley says that the loss of the consensual pupillary reaction antedates the Argyll-Robertson pupil, while Bevan Lewis lays great stress upon the loss of the cerebro-spinal reflex, for tabes with mental reduction means practically always the tabetic form of general paresis. The loss of knee jerk is of much greater diagnostic value than its exaggeration, since while both are found in paresis, there are many other causes for increased reflexes. The so-called "stumbling speech" in which syllables are run together, misplaced, left out or repeated, is quite characteristic, but not generally a very early symptom. Tremor and change of handwriting will sometimes give the clue, as will ataxia of other movements. The mental deterioration makes itself first apparent in change of character, defects in judgment, gaps in memory, and dulling of the ethical feelings as evidenced by carelessness in dress and manner, unusual irritability,

sometimes violence and tendency to indulge in monetary extravagances or excesses. Above all the increasing mental weakness becomes more and more apparent. In the more common dement form delusional ideas are generally absent or only appear far on in the disease. In general all signs of organic change in the central nervous system occurring in connection with so-called neurasthenic symptoms should be regarded with suspicion.

Particularly suggestive are tremors, spasms or paralyzes in the muscles supplied by the cranial nerves. Clouston alludes to the "fatal tremor" of the tongue and lips. Lastly may be mentioned the parietic seizures varying from slight and temporary local spasm to severe epileptiform or apoplectiform attacks which coming on in a case which has showed some of the previously mentioned symptoms, confirm the diagnosis beyond the shadow of a doubt.

The following brief case histories will serve to illustrate some of the points desired to be brought out:

Case. I. J. Z., aged 52 years, had passed an examination for life insurance three months before coming under observation in October, '09. Syphilis denied. Has suffered from failing memory, has had several attacks of vertigo and one seizure in which he fell and was unconscious for some time. Complained of slight numbness in the right leg and right arm, but nothing objective could be found there. Pupils of medium size, right reacts very little for light, left not at all; slight tremor about the lips, none of tongue. Some stumbling over test words, memory of sentences seems defective. Knee jerk normal, even on both sides. Slight difficulty in passing water. No delusional ideas and mental defects not apparent. A probable diagnosis of general paresis was made and a relative

with whom he was in business handling a good deal of money was warned as to the nature of the case. Little attention was paid to this warning, however, and the patient continued to handle the cash of the firm. About a year later the other partner was suddenly confronted by demands for considerable sums of money stated to be due by the firm, but to pay which J. Z. had previously drawn funds. Confronted he could show no receipts and could give no information as to what had become of the money so the partner had to pay and the firm was thrown into bankruptcy. The patient's condition was found at this time to have considerably deteriorated and shortly after he had a severe seizure, during which he appeared to be about to die. He rallied, however, and attempted to fill a position as a salesman, but made a failure of it and could not hold his place. He is still about, but is getting quite demented, and the somatic symptoms of the disease are marked. He has never manifested any delusional ideas.

Case II. P. D., aged 46 years, a letter carrier, consulted me in July, 1909, with regard to loss of weight, chronic dyspepsia and constipation. A test breakfast was given, but he objected strenuously to having the stomach tube passed and would not return. Nothing was seen of him for about eight months, when meeting him on the street he said that he felt somewhat better, but had not regained his weight. His wife about this time (April, 1910) had to undergo a severe operation. She now says that while she lay ill she first noticed that he behaved peculiarly. In September, 1910, I heard from his brother that he was showing unusual irritability and had acted in a childish way when calling at his house. Talking with him soon after I noticed that he seemed nervous and irritable, that

his memory was defective, that he had lost the acuteness of manner natural to him and seemed incapable of receiving new impressions or of carrying on an intelligent conversation. Although he was not then under my care I about this time tested his knee jerks and found them lost. His pupils reacted for light, there was no tremor of the tongue or lips, and while his speech was rather slow and monotonous there was no syllable stumbling. His handwriting, formerly excellent, had undergone marked change. From the office it was reported that he could no longer get through sorting his mail in any reasonable time, and on one occasion he did not come home until quite late, explaining to his wife that he had to go back to look up a registered letter which he had lost, but which it was later found that he delivered properly and had a receipt for. About this time he confessed that he had had a venereal sore at the age of 18.

At home he was irritable and talked to himself in a loud voice when alone in the house. He was cleanly, however, and had no hallucinations, illusions or delusions. In the early part of the winter while sitting at the breakfast table he had a spasm of the muscles of the throat, his eyes squinted and he apparently lost consciousness for a few moments. In February, 1911, he had for about a week retention of urine and had to be catheterized. There was also another slight attack of spasm of the muscles about the face. He is now greatly reduced in flesh, his memory is much impaired, he recently has developed delusional ideas for the first time and is restless and troublesome on account of them. The pupillary reaction to light is now sluggish and his speech is stumbling. Of interest is the onset of this disease with gastric symptoms and physical deterioration, the nervous symptoms remaining for

nearly a year in the background. He was attended by an excellent internist who on account of the lack of definite mental disturbance hesitated until recently to make a diagnosis of general paresis.

Case III. Mrs. H. I., aged 56 years, is the wife of J. I., a paretic, who came under observation in May, 1909. During the summer of 1909 J. I. was considerably disturbed and caused his wife and daughter much distress. Owing to this and to hard work they both broke down and were treated for nervous symptoms then considered as functional. While J. I. came occasionally to the clinic, Mrs. I. was lost sight of until she called at my office in March, 1911, saying that her nervousness still troubled her, that she now had sharp pains in her legs and that another doctor had told her that she had locomotor ataxia. Examination shows that her right pupil reacts sluggishly to light, her left very faintly, the knee jerk is lost on the left, a faint response can be obtained on the right after careful reinforcement. The pains in her legs have all the characteristics of lightning pains. She shows no stumbling speech, her answers are intelligent and she can perform rapidly, simple reckoning exercises. There are no gross gaps in her memory, but she herself thinks it is becoming a little defective. Her mental condition has changed from one of apprehension in 1909 to one of comparative indifference or perhaps slight euphoria. Neither in her case nor in that of her husband could any history of syphilis be elicited. Whether the case is one of tabes alone or will later prove to be one of tabo-paralysis remains to be seen. Since there appears to be slight mental change, however, the latter seems probable. The conjugal association is of interest.

Case IV. S. F., 49 years old, a re-

cent clinic case, shows the following: He complains of weakness in the legs, dizziness, sensation of falling forward, and speech disturbance. Denies syphilis and alcoholism. No headache, ophthalmoscopic examination negative. Examination shows: Gait spastic-ataxic, Romberg's symptom, slight inco-ordination of the hands. Pupils even, react very sluggishly for light. Speech markedly stumbling. He can do readily simple reckoning exercises, answers intelligently questions put him, and no gross mental defect is manifest. His daughter states that she has noticed no abnormality in his conduct at home. His manner appears somewhat childish, but as he is a foreigner and does not understand English very well it is somewhat difficult to estimate his mental capacity. Since the symptoms do not agree with those of brain tumor or multiple sclerosis it is hard to think of anything else than general paresis or cerebral syphilis with evidence much in favor of the former, though the absence of definite mental symptoms in the presence of so well marked somatic signs is puzzling.

These cases selected from a number seen, should serve to emphasize the desirability of an early diagnosis.

Where the symptoms are doubtful and a decision is imperative, lumbar puncture with the microscopical examination of the cerebro-spinal fluid and the application to it of the Wasserman test may furnish us with valuable information. In general paresis the cerebro-spinal fluid shows great increase of lymphocytes, with presence of the Marschalko plasma cell, while the Wasserman reaction is said to be positive in 98 per cent. of the cases.

Students and some practitioners frequently ask: "What is the use of making the diagnosis of general paresis since the disease cannot be cured?" While it is true that at the present



time we have no specific remedy for this disease, and it may be classed as incurable, the same statement is true of a number of other chronic troubles. We cannot speak of Bright's disease as curable, but with proper management people afflicted with it may live comfortable and fairly useful lives for a long time. Pulmonary tuberculosis can rarely said to be cured, but how many people get an arrest of the disease and live useful and happy lives for years after. In the same way it is well known that a good many cases of general paresis show long periods of remission which in some instances may pass for a cure. In a recent paper Dr. C. L. Dana advances the idea that if more cases were recognized early, the possibilities of cure would be considerable and publishes twelve observations in which the initial symptoms improved and the patients enjoyed long periods of mental and physical health before a new onset which proved the precursor of fatal dementia. In some of his more recent cases improvement persists up to the present time.

While neither the older mercurial treatment nor the salvarsan Ehrlich has succeeded in bringing about a cure of general paresis, it does not seem to be beyond the bounds of possibility that the result might be different if treatment was begun in what Dr. Dana alludes to as the "pre-paretic stage," and some more powerful remedy for syphilis and its late results may yet be found. When any considerable degeneration of the nervous tissues has once occurred repair is impossible. It is certain that ordinary hygienic and dietetic methods may prolong the life and increase the comfort of the patient if he comes early under them.

Apart from this, the responsibility of the physician in foreseeing and preventing, if possible, the disastrous results of impaired memory and judg-

ment on the part of patients holding positions in which they are responsible for property and for human lives is very great. A number of cases in which railroad accidents have been attributed to the error or neglect of men later proven to be paretics have been reported, and the last number of the *Journal of Nervous and Mental Disease* contains the report of a committee of the American Neurological Association, "appointed to inquire into the occurrence of mental disease among persons employed by transportation companies." This committee elicited the following facts:

"1. Out of 5832 commitments, 60 were of railway employes (over 1 per cent).

"2. Out of 1905 male paretics seen in city clinics, 40 were railway employes (nearly 4 per cent).

"3. Out of 2083 paretics at present in hospitals for the insane, 102 were railway employes (nearly 5 per cent).

"4. The examining physician for two railway companies has noted in four years among the employes of these companies, 26 cases of mental disease, 15 of which were cases of paresis."

They "did not discover any fatal accidents due to the mental incompetence of such employes," but "learned of several accidents unattended with loss of life due to this cause and several cases in which accidents have been narrowly averted."

Pacific Electric Building.

The anti-tuberculosis movement was started in Hungary in 1894, and in 1898 there were five institutions for the treatment of consumption. Today the campaign is encouraged and financed by the government, and over 200 different agencies are engaged in the fight. A permanent tuberculosis museum has been established at Budapest and a carefully conducted campaign of education is being carried on.

## SURGERY OF THE PALATE.\*

BY T. W. BROPHY, M.D., CHICAGO, ILLINOIS.

I have studied with a great deal of care, extending over a period of thirty years, the literature of cleft palate and harelip. When I finished my course in Philadelphia, I visited the city of New York, where I had the privilege of witnessing the clinics of many of the most distinguished men of that time. I had already become acquainted with the clinical work of Professors Gross, Pancoast, Agnew, Garretson, and many others of renown.

When visiting New York, I came into the clinic of the late Louis Sayre, master orthopedic surgeon of his time. A child was brought into the room, who had a cleft palate and harelip. The doctor picked it up, and examining the mouth with his thumb and fingers, made pressure upon the separated bones and the lip. He said: "You observe this child has a cleft palate. You will also observe that when I make pressure upon the sides of the face with my thumb and finger, the bones approach and almost touch each other. If we had a plan by which we could move them closer and bring them in contact we would be able to serve this patient well, and overcome the defect. Having no way of doing this, we will dismiss the patient, later closing the lip, and still later having an artificial plate made, that the patient's phonation may be improved."

About ten years later, I ventured to do my first operation, closing the entire cleft, both hard and soft palates, and subsequently bringing the lips together. Fortunately for me, the patient did well, and fortunately also for the patient, who is about twenty-one years old now, grew up and spoke with perfect articulation and acquired quite

a little reputation as a vocalist in the neighborhood in which she lives.

Since that time I have been operating almost every day, sometimes three and five times in one day.

I would say that I have had some failures, as every one does, but the greater number of my patients have been much improved as regards speech, and many articulate perfectly. This has been done through the persistence of effort which I have used to overcome this great deformity.

When we consider all the defects to which the human family is subject, there is none more conspicuous, more distressing, one which produces a greater depression upon the family, than a child born with this deformity. When a mother is informed that this defect can be remedied, it brings into her heart a joy indescribable.

In studying carefully the literature in all languages—I do not read them all, but have caused to be translated from the language which I do not understand all that appears in them so far as I have been able to discover bearing on this subject—in this literature, with slight deviation, we find declarations that a cleft palate is a result of arrest of development. It is due to a lack of the tissue essential to form a perfect palate. It is described as insufficient tissue, arrest of development, incomplete development, and various other expressions are made use of, synonyms of these.

The study of the subject, however, by one who will consider it carefully, will lead him at once to another opinion. The surgeons of years ago looked into the mouth of a child, saw a space, and it was so natural for them

\*Read before the Los Angeles County Medical Association, March 3, 1911.

to say, "There is not sufficient tissue here to complete this palate. There has been arrested development." There never was a greater error taught than that! There never was a greater error presented to a class of medical students than the statement by a surgeon that it was the result of arrest of development that caused cleft palate.

There is just one condition present, with rare exceptions, and that is a separation of well developed palatal tissues. Such a condition is true, as you will see by the pictures which I will show you. I will go further, and say that if you will look into the mouth of an infant with a cleft palate before the age of six months, you will find that a fissure exists; the tissues are fully developed and complete, but the palate is cleft. The hemispheres are separated.

Now having been separated, what has been the operative factor? It has been due to one of two causes, in my opinion. I would at once eliminate from the discussion the question of prenatal impressions. I would accept the question of heredity. I would declare with more force than in the presentation of the others, that cleft palate is the result of the application of force in embryo, made by the tongue and mandible. The upper jaw is just as much wider than it should be as the distance between the borders of the fissure.

Cleanliness of the parts for several days prior to operation should be insisted upon. Irrigating out the nose and mouth, examining the patient for adenoids, enlarged tonsils, decayed teeth, all of which should be cared for. Remove the adenoids and tonsils; decayed teeth should be attended to by a dentist, and mouth put in a healthy condition before the operation. We have enough to contend with without hav-

ing these conditions at the time of our operation. Having everything clean, we begin with the curved periosteotome at the posterior border of the horizontal plate of the palatal bone, and carry it along the border of the fissure until it is brought down to the anterior part of the fissure. Having made this division in the muco-periosteum, we begin to denude the bone of the periosteum. Having done this we see to our satisfaction the cleft tissues dropping together without any resistance. But when we come to the posterior portion and attempt to bring the parts together, we meet with resistance. Here Sir Wm. Fergusson divided the tensor palati muscle, and succeeded in bringing the divided parts together. He effected a union by bringing the parts in contact, but in so doing, the palate was made short, so short that clear phonation was impossible. Persons for whom nothing has been done, by careful training, persistent effort and study of the pronunciation of the consonants, have been enabled to speak very clearly, but this is true of a very few indeed. What can we do to avoid the shortening of the palate? Avoid the making of these incisions. Denude the whole hard palate and allow the soft tissues to drop downward and meet the tissue of the opposite side. After we have divided the tissues at the posterior border of the horizontal plate of the palate bone, which extend down over the floor of the nose the soft palate drops downward and to the opposite side until it meets without resistance and without tension the part similarly treated. If steps are taken as indicated, and plates employed, there is no reason for lateral incision, and I find many reasons why they should not be made.

In the first place, to make an incision causes considerable hemorrhage. The



largest branch of the posterior palatine artery reaches out to supply these parts with nutrition. To divide that artery produces hemorrhage which could be avoided. It deprives the tissue of the nutrition which we would rather by far see maintained.

It affords a new area for possible infection, which we might have avoided. It results in the formation of a mass of cicatricial tissue, not resilient enough to form a good palate. An important muscle is divided, interfering with function. Its origin—tensor palati—is from the scaphoid fossa of the sphenoid bone, and from the cartilaginous orifice of the Eustachian tube. It passes down around the hamular process, and is inserted in the anterior part of the soft palate. When this muscle is divided, there would be but little left but the M M and submucous tissue, and scar tissue. The ends of the muscle never completely re-unite. The tension of the soft palate has been taken away. You have taken away the muscle which causes the pharyngeal orifice of the Eustachian tube to dilate. All patients in whom this muscle has been divided have defective hearing. Examination of almost any patient who has had such operation performed will show you this. The tube no longer dilates as it should, conse-

quently the individual experiences difficulty in hearing.

Here is a nipple which I recommended for infants having a cleft palate. Thirty per cent. of all infants having cleft palate die of starvation. Not long since I caused this to be constructed in such a way as to form for the time being an artificial palate, thus enabling them to draw food as well as if the palate were united.

Regarding the use of anesthetic. I have made use for a great many years, of chloroform, vaporizing the chloroform from an apparatus and maintaining a state of anesthesia without, I believe, any great risk to the life of the patient. I know that patients who take any anesthetic and who undergo any operation are subject to danger and uncertainty. When a surgeon undertakes any operation, using any anesthetic, there is an element of danger attending it. The evil effects of ether, if any, are equal to the evil effects of chloroform. For my own part, I would rather take chloroform and give it to a patient, giving only enough to keep him still. I use a vaporizer. By this means the chloroform vapor is given to the patient in just sufficient quantity to keep him still, and operation is not in the least interfered with.

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## STEREOSCOPIC X-RAY PHOTOGRAPHY.\*

BY ALBERT SOILAND, M.D., LOS ANGELES.

In the matter of X-Ray photographic work, the surgeon frequently calls the Roentgen operator to task for presenting him with a flat projection shadow of a certain fracture which fails to show the angle and true relation of the fragments. In answer to this, the operator will make a photograph at a

right angle plane to the first one taken, from which a better interpretation of the conditions existing can be had and the surgeon is appeased.

To one who has been cognizant with this condition for years and accustomed to look at and study these ordinary single plane negatives, the value

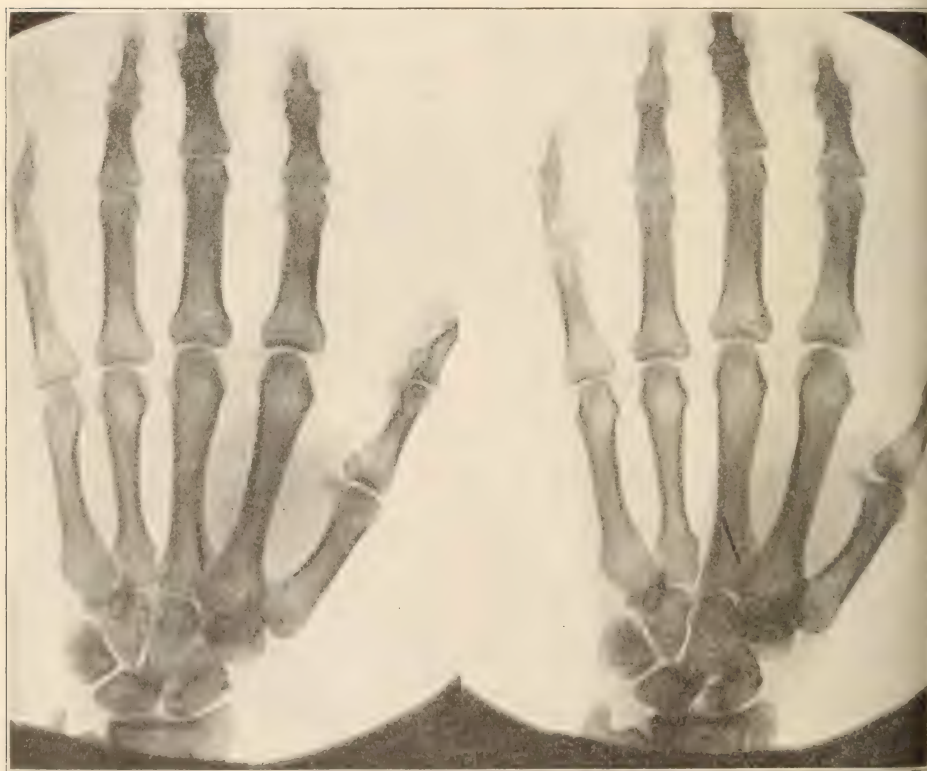
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\*Read before the Los Angeles County Meeting, May 5, 1911.

and possibilities offered by a method of stereoscopic radiography which transforms a flat shadow into an object of three dimensions, cannot be overestimated. When you stop to think that by this method you not only see the correct alignment of the fractured bones, but the depth of the bone from the surface is also apparent. The bony structures being semi-transparent, you can also see through them into the tissues beyond. One drawback heretofore to the universal employment of stereoscopic work has been the cumbersome apparatus necessary and the tedious technique in making the double exposures. Quite recently, however, an English physician, Dr. Perie of St. Bartholomew's Hospital, London, has

devised a very simple pocket stereoscope the operation of which can be quickly mastered. This ingenious instrument depends for its success upon a lens so ground as to blend two images taken of an object into one and superimpose their shadows, thus giving depth and contour to the object. Coupled to this, the perfecting and marketing by an enterprising American firm, the Kelly Koett Co., of an exceedingly practical stereoscopic tube stand has materially reduced the difficulty in making double exposures to a point of simplicity and mathematical accuracy.

I have constructed several plate holders of varying sizes which will allow the two exposures to be made on one



STEREOSCOPIC X-RAY PHOTOGRAPH SHOWING NEEDLE IMBEDDED IN FLESHY PART OF PALM. If this photograph is viewed through an ordinary parlor stereoscope the correct anatomical position of needle can be readily seen.

plate. They are automatically centered, each half of the plate being protected at the proper time when the exposure occurs. These plate holders save both time and material.

The examination of Roentgenographic negatives with the stereoscope becomes as fascinating to the Roentgen devotee as the miniature world under the cover glass appeals to the ardent microscopist. To look, for instance, into a palm in the not uncommon accident of imbedded needle and actually see the anatomical position of the needle, noting its situation to the plane of the hand, how deeply imbedded, relation to metacarpal bones, the contour of these bones, the wonderfully rounded carpal bones and their juxtaposition, the prominent scaphoid and pisiform standing out clearly near the top because they are closer to the surface—such a picture is conducive to a certain amount of enthusiasm and cannot fail to make an impression upon the observer.

The making of stereoscopic pictures is not difficult. The exposures are made in the same manner as the ordinary. The only difference is that two

exposures are necessary, one for each eye, shifting the tube for each exposure to correspond to the distance between the eyes, the axis rays from the tube striking a common focal point upon the plates. The object photographed is stationary, the plate being changed for each exposure. After development, the plate or plates are arranged in a suitable illuminating box and with the assistance of the Perie stereoscope, the story is quickly told.

The great advantage of this little instrument over its predecessors is its practicability. In emergency cases, plates can be rapidly developed and sent together with the stereoscope to the surgeon's office or hospital where the necessary information is immediately available. It requires, of course, a little practice to enable one to use the instrument with precision. The field of usefulness of stereoscopic Roentgenography is practically unlimited. It is apparent, however, that fractures, bone lesions and foreign bodies are the conditions which lend themselves most readily to this work.

Wright & Callender Building.

## HISTORY OF MEDICINE FROM HIPPOCRATES TO GALEN.\*

(370 B. C.—131 A. D.)

BY ROBERT L. CUNNINGHAM, A.B., M.D., RESIDENT PHYSICIAN, BARLOW SANATORIUM, LOS ANGELES, CALIFORNIA.

**GREEK PERIOD.** From the death of Hippocrates (370 B.C.) to the foundation of the Library at Alexandria in 320 B.C. The Philosophic Period.

Hippocrates, 460-370 B.C.

Eudoxos the Younger, 406-353.

Diocles of Karystos, 350.

Praxagoras of Cos, 335.

Theophrastos of Eresos, 372-285.

Aristotle, 384-?

**ALEXANDRIAN PERIOD.** From the foundation of the Library at Alexandria in 320 B.C. to the rise of the Roman Empire. Beginning of the Anatomic Period.

1. Herophilos, 285 B.C.-?

Demetrius, 276-?

2. Erasistratos, 280-?

3. Empirics—

Philinos of Cos, 280-?

Heracleides, 240-? (Therapeutics?)

\*Read before the Los Angeles County Medical Association, May 19, 1911.



Nicandros of Calophos, ?

Nymphodoros (Herniologist) 250-?

Amyontos of Rhodes, 60-?

ROMAN PERIOD. From the rise of the Roman Empire.

Archagothos, 219 B.C.

Aesculiades (Cleaphantes 128-56 B.C.)

Themison, Methodistic, 50 B.C.

Celsus, 25 B.C-50 A.D.

Pliny died 79 A.D.

Aretaios, 70 A.D.

Eratianos under Nero.

Heliodoros under Trajan.

Ruphus (50 A.D.)

Galen, 131-201 A.D.

#### HIPPOCRATES TO GALEN.

There are objections which might well be advanced against a strictly chronological order in the study of the history of Medicine, and tonight I feel the force of several. Hippocrates has been considered; Galen is to be the subject of a paper which will follow. Between these two masters of medicine there is a long period of five hundred years, during which time no physician arose to claim equal rank with them. In an exhaustive study of the period many names might be mentioned, but for the purpose at present in view, we shall select only the more significant characters. The political history of these five hundred years rather overshadows the purely medical record and that, we shall see, has had an influence upon our developing sciences.

Hippocrates belonged, as you know, to that most productive age when Greece gave to the world such an astonishing number of great men in all branches of learning. He further falls within the limits of the "Philosophic" period of medical history, a period which extended from the dispersion of the Pythagorean societies, 500 B.C., to the time of the founding of the Alexandrian Library in 320 B.C. He died about 370 B.C., having rendered a permanent service in that, by his teaching,

medicine was taken from the hands of the priests and freed from everything either extranatural or supernatural. Coction and Crisis and the Humoral theory are the ear-marks of the Hippocratic teaching. While the men who came after him are not so well known, it is nevertheless interesting to consider a few of them and to note how each one added in some way to practice or modified existing knowledge.

Eudoxos, the Younger (406-353 B.C.) was an adherent and follower of the Pythagorean teachings and retained Egyptian ideas of practice. Inasmuch as he considered the blood the seat of the soul, he discarded blood-letting. He forbade food for febrile patients and employed sweating as a therapeutic measure. By the men of his time he was considered most renowned of physicians after Hippocrates.

Diales of Krystos (ca. 350 B.C.) was a follower of Hippocrates. He wrote works upon all subjects in medicine, anatomy, gynecology, dietetics, pharmacology, etc. Fever he looked upon as a symptom merely and not in itself a disease. Differential diagnoses seem to have occupied a very considerable portion of his attention, as he is reputed to have distinguished pneumonia from pleurisy, ileus from colic and ascites due to splenic enlargement from ascites of hepatic origin. In his opinion the arteries arose from the head.

Praxagoras of Cos (ca. 335 B.C.) was of the family of Hippocrates and later the teacher of Herophilos. He described veins and arteries and pulse in health and in disease, changes in pulse being the cause of disease, according to his philosophy. The arteries he described as normally containing air (pneuma) and blood only under pathological conditions, when it gets in from the veins. The brain, he said, is an appendage of the spinal cord, and all

the nerves spring from the heart. He let blood in pneumonia and emphasized the importance of diet.

But there was another school of Greek medicine built upon the teachings of Plato, apparently quite distinct. This was the Dogmatic School and shows evidences of earlier Egyptian influences. Their practice was based upon dogma and theory and though almost purely dogmatic and theoretical, is very interesting. Plato was a philosopher who undertook to study disease, not by observation and experiment, but by pure meditation and mental intuition. In reading Anaxagoras he found this proposition—"mind is the regulator and principle of all things," which idea, he says, "struck him like a stream of light" and was indeed sufficient to inflame his imagination and to create in his brain an entirely new system of physics and later of medicine. The triangle he considered the fundamental form of matter, the unit of things material or immaterial, and variously combined in geometric systems, making up all substances. In his medical doctrines are many charming theories and one is tempted to quote at length from some of his eccentric fictions, but lack of time prevents it now. Dr. Osler, in his lecture on "Physic and Physicians as depicted by Plato" has given us a picture of that philosopher's attitude, and to that lecture I refer you.

One of the most interesting names of this period just after Hippocrates is that of Aristotle, who, though not himself a physician, is closely associated with medicine. Born 384 years before Christ, and the son of a physician, he was educated from earliest youth in general sciences. His father died while Aristotle was still a young man and left some considerable fortune, which Aristotle proceeded to expend in the most polished forms of ancient dissi-

pation. When his purse was empty he turned to arms, but soon wearied of that profession. Plato was at that time a renowned teacher, and attracted by his early love of study, Aristotle went to Athens and became the most assiduous of Plato's pupils. To support himself he worked in a shop as a pharmacist, and no doubt gave medical advice to those who asked it. When Philip of Macedon wished a tutor for his son Alexander, Aristotle was selected for the post, and while fulfilling his duties he cultivated a friendship with his pupil which never failed; the first museum of natural history was founded by Aristotle with funds supplied by Alexander the Great.

Aristotle, like Plato, was primarily a philosopher, but his philosophy was widely different from that of his teacher. While Plato was a dogmatist, Aristotle laid the foundations for what was afterward the Empiric School. Two of his statements are worth recalling here—"There is nothing in the mind (consciousness) which was not first in the senses." Again—"Men who desire to learn must previously learn how to doubt; for science is but the resolution of previous doubts; he who does not know the knot is unable to untie it." In the doctrine of Aristotle only four elements are recognized—fire, air, earth and water—all capable of transmutation. Antagonism of these elements explains natural forces, according to his belief. His works are too numerous for review at this time. It is sufficient to say that, though his logic was clear, his premises was not always sound and his writings upon medical subjects show the inaccuracies to be expected where pure philosophy warps the mind.

We come now to the Alexandrian period (Anatomic), which is the important transition period occupying chief place between Hippocrates and Galen.

The general trend of work was more to classification and criticism of existing knowledge than to original production. Trade and manufacture made advances; mathematics, mechanics, music and architecture increased and improved; physics and zoology received distinct additions; anatomy became more exact; pharmacology grew; but medicine as a whole did not maintain the strides of the former period. Bibliography and the collection of libraries marked the age. The great men were Realists, and what advance was accomplished came from intelligent observation. Universities were established where appointed teachers received free livings and excellent salaries, two such institutions existing in Alexandria, where were gathered Greek, Egyptian and Hebrew students. Clinics were held and both universities flourished until Christian fanaticism destroyed them, the last remnants being lost in 640 A.D. Dead bodies, animals and living criminals furnished material for anatomical research. In living subjects the abdomen was opened first and only later the thorax and cranium, for the subjects succumbed when the upper cavities were entered. No exact dissections were made, but only general examinations. Toxicological studies were also carried out upon criminals and the experiments recorded. The physicians of the period may be grouped under three orders, (1) Herophilos; (2) Erasistratos; (3) Empirics.

1. Herophilos of Calcedon in Bithynia, was a pupil under Praxagoras of Cos. He was physician to Ptolemy I Soter (328-284) and was allowed by his sovereign to dissect criminals condemned to death. In his dissections he was evidently fond of opening the cranium, and it was he who discovered the venous sinuses, vascular membranes and calamus scriptorius of the brain. He described the fourth ventricle ac-

curately and considered it the seat of the soul, because he so often saw death following injury to this region. Nerves were known to him, but not their true function. He distinguished between arteries and veins by the difference in the vessel walls. The first knowledge of the lacteal lymphatics came through his work. He described the liver, duodenum, pulmonary vessels, seminal vesicles, vas deferens, epididymus, prostate, etc. He opposed the earlier idea that the arteries were connected with the lungs and contained air. In obstetrics he recognized the chief causes of dystocia and the changes in the vagina and external os in pregnant women. He was an excellent anatomist and no mean surgeon.

Demetrius (276 B.C.) first recognized diabetes. He also wrote upon drugs, therapeutics, obstetrics and diseases of childhood. In 250 B.C. Mantius first collected into a book formulae for the preparation of medicines. By all men of this time the pulse was taken as of the greatest importance in both diagnosis and prognosis.

When Ptolemy Physkon (171-167) drove all physicians and other men of learning from his land a new School of Herophilos arose in Laodocia, and it was to this second school of Herophilos that Zeuxis belonged, he who was later physician to Cleopatra. The earlier school, however, perfected the operation for cataract, though it is often attributed to the Laodician group of men. The original school of Herophilos disappeared during the first century after Christ, while the second lived about one hundred years longer.

2. Erasistratos, born 280 B.C., or somewhat earlier, was a nephew of the great Aristotle. His claims to immortal fame rest in part upon the fact that he once received a fee of about \$117,500 from Antiochos I Soter, who was sick with love for his stepdaugh-



ter, and by following the advice of his noble and sagacious medical advisor, married her and was cured. Erasistratos designated the brain as the seat of all diseases of the mind and loss of memory. He also described anastomoses between arteries and veins, the valves of the heart, the trachea and the epiglottis. He declared that in conditions of plethora blood flows through these anastomoses into the parenchyma of the various organs causing fever and inflammation. Purging and the letting of blood he condemned, employing simple remedies, baths, etc. His teaching did not gain a large acceptance, though it lived to an old age.

3. The Empirics, among all ancient schools of medicine, stand nearest to the modern Realists. Their fundamental factors were, observation, past history of the disease, and comparison with some similar case—the “Empirical Tripod.” In 280 B.C. Philinos of Cos added to these three factors by which disease must be learned, a fourth, namely, autopsy observations. He was a pupil of Herophilos and a commentator of Hippocrates. Opium was certainly in use at this date and here, too, criminals served as material for experimental purposes. Toxicology was relatively well developed and even Mithradates Eupator of Pontos lent himself to experimentation, though to be sure from no love for science, but hoping to obtain immunity against intended poisoning. Gynecology and pharmacology were conveyed in hexameter verse, one of the chief writers being Nikandros of Kolophos. Surgery in the Alexandrian school naturally followed anatomy in development, and though no special schools of surgery existed, many names appear in the records of the period as those of surgeons of skill and intellect, such as Nymphodoros (250 B.C.), Amyontos of Rhodes (60-30), and Perigenes. Veterinary sur-

gery also kept pace with the general progress.

ROMAN MEDICINE. The civilized world at about this time came under the rule of Rome, Greece 146 B.C., Asia Minor in 64 B.C., and Egypt 34 B.C., so that Rome takes the place of Athens or Alexandria as the capital of the world. The noble-born youths of Rome did not consider medicine as worthy occupation for a gentleman, and the practice and knowledge of medicine was, for more than a century, wholly in the hands of slaves, usually Greeks. In the popular mind each disease and each organ was deified. In 294 B.C. Aesculapius had been adopted and a temple built in his honor upon an island in the Tiber, but superstition continued to be the special characteristic of true Roman medicine and birds and beasts were held of greater worth than Greek slaves in both diagnosis and prognosis. To be sure certain plants were employed for their medicinal values and the healing of wounds was seen to be influenced in a measure by external conditions, but scientific medicine was known in Rome only after 219 B.C., when the Greek Archagathos brought the first rational practice to the city. He was not a slave and yet he was hated by all as one who cut and burned living flesh. Later in the century, after Greece had become a Roman province, many Greek physicians were found in Rome, both slaves and freedmen. A few Romans joined the ranks, but only a few at first. The Greek physicians brought their knowledge from Alexandria and from Pergamos and Greek became in Rome the language of science, as it had always been the language of literature. Not until 230 B.C. was a school for medical instruction opened in Rome. In the first century A.D. asylums for friendless children and lying-in hospitals were established, but before that

the helpless or the aged and infirm had been left upon an island in the Tiber to live or die as they could. Baths existed in Rome much earlier, we know, but not for therapeutic purposes so much as for display and luxury. Freedmen physicians could receive fees for their services and the Greeks were paid well in many instances. Specialists abounded and men devoted their practice to special branches in very much the same way that they do with us. Conjurors were not called physicians, wherein the Romans surpassed modern standards of discrimination. Public officers looked after the poor and received a stipulated salary from the state. Each member of the court employed his own private physician. Under the Caesars military and marine surgeons were appointed. Apothecaries, in our meaning of the term, did not exist, but shops were found where plasters, salves and medicinal plants could be purchased by physician or patient. Many such salesmen grew rich from the profits on poisons, abortifacients and other direct ancestors of our modern patent medicines. In the laxity of the Roman morals was much that encouraged all sorts of professional abuses, and all sorts existed. But not everything was bad. There was much that was worthy, though such was of Greek origin, whether in science, art or letters. Greek schools in Athens and in Rhodes were sought as higher schools and Greek was the dominant tone from Alexander to the Middle Ages, as Latin became prominent afterward.

No individual system of medicine was created by a Roman, but a new theory was brought to Rome after the downfall of Greece, one which opposed the Hippocratic Humoral teaching and which was founded upon the anatomy of Democritus and Epicurus. This was the Speculative-Dynamic theory, based

upon the idea of atomic motion. The ideas were brought forth by Aesclepiades, but were taught by Cleophantes (128-56 B.C.), who left Athens and came to Rome, possibly because his teaching won too many enemies in Greece, the home of Hippocrates. In brief the doctrine was as follows: The body is composed of innumerable atoms, originally bound together, but later separated; between the atoms are pores which allow the circulation of air which in turn carries finer atoms to furnish nourishment. Health depends upon a regular motion of atoms; disease upon an irregular motion, whether too rapid or too slow, the juices of the body being entirely accidental and unimportant. Too rapid motion of the atoms causes fever and too slow motion is followed by subnormal temperature. Thus was Hippocrates opposed and the assertion was made that the physician, and not nature, must effect all cures of the sick. In the beginning of a fever Cleophantes discarded all violent purging, withheld food and drink and prevented sleep, but in the later stages of a febrile affection he gave food and wine in abundance, friction, baths, cold water internally and prescribed song and declamation at the bedside. He said Hippocrates had studied death and not disease and he would not agree with Hippocratic teaching on any point. His observations on chronic sickness constitute his best work and for these he is chiefly remembered. His pupils forsook his guidance largely and many of them drifted with popular taste, as Titus Aufidus, who prescribed coitus as a form of gymnastics particularly valuable in the treatment of melancholia.

Themison (50 B.C.), a disciple of Aesclepiades, was the founder of the Methodistic School. He had a large following in the Middle Ages and Methodistic influences can be traced to modern times. He recognized three

conditions—or, as he termed them, “communities”—of the body and according to these all diseases must be diagnosticated and treated; Status strictus; 2, Status Laxus; 3, Status mixtus; i. e., pores open, closed or mixed. It is of no worth to find the seat of the disease, nor to give to the disease a name, but only to know which of these three conditions is present. Diseases were further chronic or acute, e. g. Acute constrictive—apoplexy, angina, convulsions, ileus, etc. Chronic constrictive—vertigo, epilepsy, mania, jaundice, obesity, etc. Relaxed—cardialgia, cholera, haematemesis, flux, etc. Mixed—peripneumonia, pleurisy, colic, dysentery, asthma, catarrh, phthisis, etc. His therapeutic indications must be clear; if constriction is present, relax; if relaxation, constrict. As relaxants he employed blood-letting, emollients, warm drinks, sleep, etc. As astringents he used darkness, fresh air, cold or acidulated drinks, solutions of alum, red wine, etc. Later a surgical “community” was added with its own indications embracing all of surgery. Uniformity was a fundamental principle of their practice and one form of routine treatment, “The Metasynechic Circle” was applied to all obstinate cases, a series of procedures most terrifying to our more humane feelings.

Where medicine was reduced to generalities so simple, and where all of the system could be mastered within six months, many rushed into the profession. But its own insufficiencies killed the popularity of the Methodistic cult, especially after Galen, who was disgusted with their sophistries, had addressed them as “asses of Thessaly.” Other Methodists were Coelius Aurelianus and Saranos of Ephesos. The later was an obstetrician and gynecologist and somewhat interested in pediatrics. He is supposed to have prac-

ticed manual separation of the placenta, and is known to have recommended life in the woods for consumptives.

A name perhaps as great as that of any Roman physician before Galen, is that of Cornelius Celsus, who lived from 25 B.C. to 50 A.D. He studied medicine merely as a part of his general education and for his own practical use alone. His works on medicine are the best of his time and he wrote in Latin, which is of high literary value as well. He went back to the Alexandrian originals largely for his views and his books, being in Latin while all other writers used Greek, became very popular. He probably did practice medicine and it is certain that he practiced surgery. His writings are clear and distinct, remarkably direct as compared with the speculative Greeks of his day and his therapy was as simple as his texts. Of the many interesting points in the life and labors of Celsus we can select only a few for mention here. He first distinguished hallucination of vision; he described trachoma; necrosis of the jaw with dental caries; he described arthritis, luxations and abscess of bones. As a surgeon he was famed for his skill in using either right or left hand with equal ease. He was not too sympathetic—a point of importance then—and did not make too much haste or cut too little on account of the cries of his patient. He opened over ununited fractures and got union following. He operated for hernia and always practiced double ligation of vessels when he cut between his ligatures. He did castrations, amputations, plastic operations for nasal defects and hare-lip, reconstructed a prepuce for more than one ambitious Jew in Rome, and resected rids. He described catheterization of males and females and extracted dead babies from the uterus. Alto-



gether he seems to have been a most remarkable man, and judged even from our present advantage commands our respect and admiration.

Pliny the Elder must be mentioned for his descriptions of medicinal plants, for his work was the text of all pharmacologists of the Middle Ages. He died in 79 A.D. at the eruption of Vesuvius. Natural history, his field, brought him much among medical men and he gives evidences of his associations in his writings.

Athenaios (70 A.D.) was a Stoic and a believer in the Pneuma of the earlier writers. His views upon sexual matters were interesting but of no vast importance. In surgery Archigenes (48-117 A.D.) was noteworthy. He amputated at the joint in case of a burn or comminuted fracture below it. He excised tumors and large wounds. He made skin flaps for stumps in his amputations and tied the large arteries. Aretaios of Cappadocia (30-90 A.D.) did not gain much recognition in his own lifetime, but in later centuries he was esteemed much more highly. He followed Hippocrates closely, was a keen observer and a man of wonderfully fine intellect. Among other things he described diphtheria, phthisis and diseases of the spleen. It is of interest to know that Aretaios knew something of cardiac murmurs as compared with normal heart sounds, though just how far he went in this knowledge is not clear.

No other men of great distinction are found until the work of Galen brought him into prominence. Under Nero was Eratianos, a commentator of Hippocrates. Under Trajan Heliodorus made some stir as a surgeon, opening empyemata and peritoneal abscesses. He even performed a craniotomy. Ruphus of Ephesus (50 A.D.) gave good anatomical descriptions of the thymus and of the spleen and asserted that

both are useless organs. Marinos, an anatomist living 100 A.D., discovered the tenth pair of cranial nerves and described glands in the intestine.

This brings us to Cladius Galenus of Pergamos, who was born 131 A.D. In review of the period just discussed let me quote from Renouard: "We have seen that medical studies, which were already flourishing in the Isle of Cos under the successors of Hippocrates, received a new impulse by the foundation of the school at Alexandria and attained in that city a degree of prosperity unheard of before. A great library; congregation of learned men in the capital of Egypt where life was easy and secure; the dissection of the human body authorized by the sovereigns; these factors contributed to that happy revolution, and the school at Alexandria became the most famous of the world for natural and medical sciences. During the period anatomy and physiology made the greatest progress; next followed internal and external nosography, or the description of disease; lastly medical and surgical therapeutics acquired great perfection. Nevertheless the medical fame of no one of that period has reached the height of that of Hippocrates; no man united in himself, perhaps, in the same degree as he, all of those qualities which constitute the great practitioner—intelligence, sincerity, disinterestedness, the love of his art and of humanity."

What Galen accomplished, and his effect upon medical sciences and the healing art, must be left for the next paper in this series to disclose.

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# SOUTHERN CALIFORNIA PRACTITIONER.

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.  
This journal endeavors to mirror the progress of the profession of California  
and Arizona.

Established in 1886 by  
WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

Associate Editors:  
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Address all communications and manuscripts to

EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

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## EDITORIAL

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### THE A. M. A.—RETROSPECTIVE.

The Los Angeles meeting of the American Medical Association is now a matter of history. Our doctors have come here from the East and from the West, and from the North and from the South; from Germany, Austria, England and Scotland; from the Canal Zone and Manila, and from China. They have all been with us and we have received great pleasure and benefit from this opportunity to associate with them. The thorough organization began to show at the registration bureau, under the management of Dr. W. W. Beckett, where, notwithstanding the crowds, there was no delay or confusion.

An innovation that we consider most important was the arrangement for addresses and lectures to the laity on Preventive Medicine. Dr. John B. Murphy and Dr. W. A. Evans, who directed these public meetings, may well

be congratulated upon their success. The greatest of these meetings was under the auspices of the Los Angeles Chamber of Commerce. Mr. James Slauson, president of the Chamber of Commerce, presided. The three announced speakers were United States Senator Frank P. Flint, Colonel W. C. Gorgas of the United States Army, in charge of the sanitation of the Canal Zone, and Dr. S. Adolphus Knopf, the tuberculosis specialist of New York City. Senator Flint struck out straight from the shoulder for a Department of Public Health and in favor of putting sanitary matters in the hands of expert sanitarians. Colonel Gorgas in his quiet, forceful, attractive manner, told of the work in Havana and in the Canal Zone, and was listened to with intense interest. Dr. Knopf, who has a manner exactly opposite to that of Col. Gorgas, aroused great enthusiasm by his explosive, epigrammatic statements. Among some of these Knopf epigrams are the following:

"There is no such thing as hereditary tuberculosis.

"You can cure consumption by the unstinted use of God's fresh air twenty-four hours in twenty-four, plenty of good food and plenty of good water inside and out.

"Children should get all the fresh air possible; they should play, study and sleep in the open air.

"The prejudice against night air is simply a nightmare."

Doctors Favill and Billings also made impressive talks to this great audience.

The social functions were all delightful and successful. Four hundred ladies from Los Angeles and surrounding towns composed the committees that entertained the wives and daughters of the visiting physicians. They all worked together with enthusiasm and perfect harmony. Mrs. Ernest A. Bryant, Mrs. Charles B. Nichols and Dr. Elizabeth A. Follansbee as chairmen of their respective committees deserve great praise for the graceful, forceful and successful manner in which they directed the duties allotted to them.

The work of the men which was in the hands of committees composed of at least five hundred of our fellow practitioners, also went through without a hitch anywhere. Dr. H. Bert Ellis as the great director of it all deservedly had the confidence of everybody. The members of the profession promptly handed over the money necessary, Dr. Ellis himself leading the contribution with \$750 in cash. To show how universal this sentiment was of loyalty to the cause, we might mention four instances: Dr. George L. Cole and Dr. W. A. Edwards were abroad and could not be here, yet they each sent a check for a good round amount, and Dr. A. J. Murietta of Arizona, formerly of Los

Angeles, unsolicited sent a check for the general fund, and Dr. E. R. Smith, who was necessarily East during the meeting, sent in his check, and said that he did not want to be counted out on such an occasion.

The Pasadena physicians under the leadership of Dr. F. C. E. Mattison deserve special praise as they subscribed to the general fund more proportionately than the Los Angeles physicians and at the same time out of another fund made Pasadena Day a memorable event.

The physicians of Venice, Ocean Park and Santa Monica also came handsomely to the front as subscribers to the general fund and in addition entertained many hundreds of the doctors in their own towns.

There were so many banquets that we cannot begin to mention them. One of the delightful evidences of the good fellowship of the whole occasion was the banquet of the Alumni of the University of Pennsylvania at the Hotel Alexandria when they had as a guest of honor Dr. Edward E. Montgomery, professor of gynecology of the Jefferson Medical College. The three cheers that greeted Dr. Montgomery as he arose to respond to the toast assigned him must have warmed the cockles of his heart.

Another event worthy of noticing was the banquet given by Dr. Clarence Moore of Los Angeles to Dr. Charles Mayo. There were covers for 55, and the menu was as perfect as the California Club could make it.

A unique affair at which there was great joy was the Beefsteak Supper given by Dr. H. Bert Ellis. This took place along towards midnight, when most of the guests had already attended two



banquets, but the beefsteaks on the white boards were irresistible.

One feature that should be mentioned here is the fact that the attendance of Arizona physicians was larger in proportion than the attendance from California, and the physicians of California should realize that there is springing up between Arizona and our own State an affiliation of the deepest, warmest and truest nature.

It is not for us to boast in regard to what the people of Southern California did. We might point with natural pride to the Alexandria tea, to the reception at the Los Angeles Country Club, to the garden party given at the home of Dr. and Mrs. W. Jarvis Barlow, to the reception and ball in honor of the President that was given at the Shrine Auditorium under the direction of Dr. Barlow, to the *al fresco* musical given by Dr. and Mrs. Norman Bridge at their beautiful home in Chester Place, to the vaudeville and smoker on the Hamburger roof garden, where, under the chairmanship of Dr. Chas. W. Bryson, over 5000 were entertained, to the barbecue at the Busch Gardens, Pasadena, and to the Roman chariot races given by Pasadena; to the trip to Catalina Island given by the convention league of Los Angeles, under the leadership of Motley H. Flint; to the excursion and luncheon at the Hotel Virginia given by the Long Beach physicians and Long Beach Chamber of Commerce, and to scores of other entertainments that were provided for our guests, but we will leave it to our guests themselves to record all of these.

The scientific sessions of the meeting,

for which the profession of Los Angeles had no responsibility, have all been described in full in the medical journals of the East. Suffice it to say that they were in every instance satisfactory.

The election of Dr. Abraham Jacobi was in every sense of the word reassuring. Many members were nervous for fear a political President might be elected, but when the report came that Dr. Jacobi had been chosen, a sense of relief from anxiety passed through the professional world.

The election of Dr. W. Jarvis Barlow as vice-president was a merited honor well bestowed.

This is the strongest scientific organization in the world and, led by Dr. Abraham Jacobi, of whom his lifelong friend, Carl Schurz, said he was "the personification of the scientific conscience and the personification of a civic conscience," we predict it will grow in efficiency, liberality and altruistic force during the ensuing year.

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#### THE LOS ANGELES MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The sixty-second annual session of the American Medical Association stands out conspicuously as one of the greatest meetings of this representative body. It will long be remembered and referred to as "the Los Angeles meeting" by every member who attended. It is doubtful if any other city in America could furnish such a happy combination of delightful climate, beautiful surroundings, perfect detail of arrangement and truly royal hospitality.

The attendance was large, and especially so when one considers the long distances traveled by most of the mem-

bers. The officers of the different sections were very fortunate in their choice of papers. The discussions were interesting and to the point. The halls secured for the general meetings and for those of the different sections were at convenient points and easy of access; and the rooms themselves were comfortable and commodious.

Perhaps the most noticeable feature of the meeting was the marked good fellowship, stimulated by the splendid, open-handed hospitality of the hosts, the Los Angeles County Medical Society. The moment a member and his party stepped from the train they were taken in hand by some member of this society, and until they returned to the train were made to feel that they were the most honored guests of this society. The physicians of Los Angeles and vicinity simply closed their offices, neglected everything but their most urgent calls, and devoted themselves entirely to the entertainment of the visiting members of the American Medical Association. And such prodigal, whole-souled entertainment! Every moment, when the Association was not in session, was simply filled by the most enjoyable receptions, musicales, smokers, luncheons, dinners or sight-seeing excursions, all planned on a most elaborate scale but with perfect taste and executed with faultless precision. With all this it was a most democratic affair, the lowliest member of the Association being made to feel that every bit of the entertainment was provided especially for him.

It is always a pleasure to visit Southern California. The glad sunshine, the cloudless skies, the balmy air, and the

flower and fruit covered fields are a revelation, especially to those accustomed to living in the East. But when to these natural beauties are added a truly western hospitality of the very highest type it is little wonder that the unanimous verdict of the visiting members of the American Medical Association is that the Los Angeles meeting was the "best ever."

J. W. F.

Prescott, Arizona,  
July 2, 1911.

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#### UNIVERSITY OF SOUTHERN CALIFORNIA.

The twenty-eighth annual commencement of the University of Southern California was held at 10:00 a.m. June 15th in the Temple Auditorium. This auditorium seating as it does over three thousand, was crowded from the top gallery to the orchestra. It was an inspiring audience and on the stage were seated two hundred and eighteen who were to receive the degrees of A.M., A.B., B.S., M.D., D.D.S., B.L., and also diplomas from the colleges of Music and Theology, Pharmacy and Fine Arts, together with the faculties and Dr. Geo. F. Bovard, President of the University, Charles Edwin Locke, Commencement Chaplain, and Bishop Edwin H. Hughes.

It was an exhilarating sight, and while sometimes we may feel that the agencies for evil are gaining full control in the world, yet such an audience as this is reassuring.

The address by Bishop Hughes was an able and delightful argument in favor of a college education, and, as he put it, "of a Christian college education." His tribute to those who were fighting

against child labor and other sins of the 19th and 20th centuries was received with great applause.

On the recommendation of the dean, Dr. Charles W. Bryson, President Bovard conferred the degree of Doctor of Medicine upon the following:

Max Jacobs Abrahamson, Phil Boller, Wilbur Travis Boyd, John Vinton Cocks, Leon De Ville, Arthur Henry Domann, Mabel A. Genung, William Francis Traugbher.

While there were fifty to receive the degree of Bachelor of Laws, there were only eight to take the degree of Doctor of Medicine. We believe this goes to show that the general impression is that law today offers a better field for a young man than medicine.

This commencement should be a source of great pride to President Bovard and his co-workers.

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#### MEDICAL CONFERENCE AT LOMA LINDA.

The Loma Linda Sanitarium under its present management has been in existence since 1905, in which year it was purchased by the Seventh Day Adventists of Southern California. The buildings have been added to and new ones constructed to accommodate the steadily growing patronage. The realty has been increased from seventy-two acres to two hundred fifty acres.

As a medical institution its work is largely in the field of physiological therapeutics, though it is committed to no medical sectarianism of any kind and employs in its medical and surgical practice all rational methods of demon-

strated scientific worth. The practical advantages of a vegetarian diet in medical practice, as well as in health, as demonstrated by Chittenden and others, are employed in the treatment of both digestive and nutritional disturbances as well as an aid in increasing strength and endurance in neurasthenia and other conditions.

The institution also carries on educational work in prophylactic medicine, hygiene, sanitation and healthful living.

The College of Medical Evangelists was organized in 1909 for the purpose of educating medical missionaries for both home and foreign fields, temperance workers, etc. It is also designed to provide its sisterhood of sanitariums, of which there are forty owned and operated by this denomination, with physicians having in addition to a general medical education a special training in physiologic therapy.

For the benefit of these institutions, twenty of which are located in the United States, and the medical missionary work of the denomination, a conference of physicians was called to convene at Loma Linda, June 23 to 26, so that visiting physicians might take advantage of both this and the meeting of the American Medical Association in Los Angeles.

Various missionary and evangelistic subjects were discussed, among them the needs of educational medical evangelistic work in the large cities and methods of labor in city and foreign fields. Among the medical topics receiving attention was the necessity for special education and training on the part of surgeons and the advantages of previously spend-



ing some years in medical practice, also the broadening of the practical scientific application of physiologic therapy. Cases of pellagra and exfoliative dermatitis were demonstrated. Thirty-five physicians representing twelve different institutions were in attendance. At the close of the Loma Linda conference all attended the American Medical Association meetings in Los Angeles.

G. K. A.

### CHRISTIAN SCIENCE.

No. 5.

We present another installment by Dr. J. M. Buckley of New York City as it appeared in the *Christian Advocate*. While this delusion lasts we believe the profession should be ready to talk with all those whom they meet professionally and point out its fallacies. There will be one more installment. These six chapters carefully read will equip you for argument. Every physician should have these read by the lay members of the family. Do not sit still while ignorance, superstition and mercenary cunning are abroad in the land:

MRS. EDDY'S IDEAS OF OLD AGE.

Mrs. Eddy particularizes:

[p. 133.]<sup>1</sup> I have seen age regain two of the elements it had lost, sight and teeth. A lady of eighty-five, whom I knew, had a return of sight. Another lady, at ninety, had new teeth—incisors, cuspids, bicuspid and one molar. A gentleman, at sixty, had retained his full set of upper and lower teeth, without a decaying cavity.

As to the retention of teeth to the age of seventy, eighty, or ninety years, we have acquaintances who at seventy have every tooth; other members of the same family retained all their teeth till the age of eighty-five. Occasionally persons are found who, after losing

their second teeth, find a third set cutting through.

As "teeth" are brought by the author of Science and Health with Key to the Scriptures into this wondrous volume, we will consider

MRS. EDDY'S TOOTHACHE AND WHAT SHE DID TO RELIEVE IT.

Ten years ago, or more, a person of good standing, who was in the employ of Mrs. Eddy, informed us that frequently when Mrs. Eddy was under an "error of mortal belief" concerning the toothache she would send persons out in the middle of the night to secure a dentist, or some one, to destroy or counteract the pain. We, however, did not know our informant well enough to publish that statement as a matter of proof. But quite a number of years ago the Rev. Dr. Whitaker, of New England, whom we knew well, and who had married into the family to which Mrs. Eddy belonged, informed us that she patronized John M. Fletcher, a dentist of Concord, N. H., and applied to the said dentist to give her an anæsthetic so that she could not feel the pain of the extraction of the tooth. This was reported throughout New England and discussed in the papers to such an extent that Mrs. Eddy thought it wise to take up the matter in the *Christian Science Journal*. She secured from Dr. Fletcher and published over his signature in the *Christian Science Journal* the following:

The story told by the Rev. Dr. Whitaker and others to the effect that Mrs. Mary Baker G. Eddy called at my office in Concord, N. H., in great pain, and had a carious tooth extracted, requesting me to use a local anæsthetic before extracting the tooth, is incorrect.

Mrs. Eddy did call at my office and had a troublesome tooth extracted. But it was not a carious tooth; neither was she in pain at the time. She did request me to extract the tooth, allowing me to use my own painless method for extracting teeth, which I had recommended.

I shall take no further notice of inquiries on this subject.

(Signed) JOHN M. FLETCHER.  
Concord, N. H., November 22, 1900.

It is clear from the above that Mrs. Eddy's tooth was "troublesome." If it was troublesome, it was because it *hurt* her. According to her theory, it was only a "claim," an "illusion of mortal mind." She had the tooth *extracted*.

It is easy to see that Dr. Fletcher was an honest man, but that he wanted very much to keep Mrs. Eddy's patronage, and so he takes up the little points, that the "tooth was not carious," "nor was she in pain at the time."

Probably ten per cent of all the people that go to dentists for relief, find that before they get there the tooth has stopped aching for a time. This is an interesting phenomenon of nature which can easily be explained.

But this oracle went to the dentist *because* the tooth was "troublesome," and she "allowed" him to use his own "painless method for extracting teeth," which he had then and there recommended to her for that purpose. In the Christian Science Journal she endeavors to show that she was consistent.

First, she says, "The practice of surgery is not introduced into Christian Science," and thus proceeds:

Bishop Berkeley and I agree that all is Mind. Then, consistently with this premise, the conclusion is, that if I employ a dental surgeon, and he believes that the extraction of a tooth is made easier by some application or means which he employs, and I object to the employment of this means, I have turned the dentist's mental protest against myself; he thinks I must suffer because his method is interfered with.

Therefore, his mental force weighs against a painless operation, whereas it should be put into the same scale as mine, thus producing a painless operation as a logical result.

The cuttlefish blackens the water in order that he may not be caught or harmed. If Mrs. Eddy had studied its methods for a quarter of a century she

could not have illustrated them more clearly than by this passage.

There is no longer any reason for wondering how people adhere to Mrs. Eddy's theories if they can relish or even bear such mental slops.

But she knew her converts and forged their chains.

#### MARVELS THAT ARE NOT MARVELS.

[p. 133.]<sup>1</sup> Acute and chronic beliefs reproduce their own types in the lingering or less stubborn forms of old age, sickness and sin. The *acute* belief of age comes on at a remote period, and does not last as long as the *chronic* belief.

[p. 131.]<sup>1</sup> The error of thinking that we are growing old, and the benefits of destroying that illusion, are illustrated in a sketch from the history of an English lady, published in The London Lancet.

Disappointed in love, in early years, she became insane. She lost all calculation of time. Believing that she still lived in the same hour that parted her from her lover, she took no note of years, but daily stood before the window, watching for his coming. In this mental state she remained young. Having no appearance of age, she literally grew no older. Some American travelers saw her when she was seventy-four, and supposed her a young lady. Not a wrinkle or gray hair appeared, but youth sat gently on cheek and brow. Asked to judge of her age, and being unacquainted with her history, each visitor conjectured that she must be under twenty. \* \* \*

[p. 132.]<sup>1</sup> Impossibilities never occur. One instance like the foregoing proves it possible to be young at seventy-four; and the Principle of that proof makes it plain that *decrepitude is not a necessity of NATURE or law, but an illusion that can be avoided.* \* \* \*

Mrs. Eddy descants upon the case of this English lady as though the watching for her lover's coming prevented her from having the usual appearance of old age. In any large insane asylum there are many patients, just as is the case in general society, who, without any

<sup>1</sup> Science and Health, with Key to the Scriptures. Twenty-fourth Edition, Revised. Boston. 1886.



belief that they are young, look much younger than they really are. There is not the slightest conclusion to be drawn from this, except that a considerable number of the human race pass to and through old age retaining an almost youthful appearance. Not infrequently the mother of a large family looks younger at sixty or sixty-five years of age than her oldest child. Of persons widely known who have seemed young to all who saw them, we specify as illustrations the late Dr. Robert M. Hatfield, of Chicago, who, long after seventy, looked younger than most persons at fifty; and the living Bishop Henry White Warren, whose appearance, actions and voice seem to be those of a man of fifty, whereas he has just passed his eightieth birthday. In Maine a professor of comparatively youthful appearance was required to testify in court. The judge upon the bench and all in the room were surprised when he had to answer to the question of his age, and responded, "Sixty-seven." That happened to be the judge's age, and he said to the witness: "A very excellent age if one could always remain at it!"

[Within the last five months when I was visiting County Kerry (Ireland) Insane Asylum, the medical director pointed to a long bench on which sat a row of ten or twelve apparently very old women. I glanced at them without individualizing, and was turning away when he directed my attention to one and asked me to guess her age, which I did, as "between thirty and forty." He informed me that she was eighty years of age. I inquired if she had much intelligence. He answered, "Not at all. She rattles on from one subject to another."]

Many old people in asylums look younger than they are.

#### "CHEMICALIZATION."

This is the time when a poor deceived believer dies under Christian Science

treatment, or when a regular physician is called by the frightened friends and finds a case which, had it been taken in time, would have ended in recovery. Some cases, of course, recover by the innate strength of the patient, which for many ages has been expressed in the three Latin words, *vis medicatrix naturae*, set forth in medical works from the earliest times as "the capability of living tissue, animal or vegetable, to remedy or remove disease, or to repair injuries inflicted upon it."

The following is quoted from the edition of Science and Health of 1886:

[p. 313.]<sup>1</sup> What I term *chemicalization* is the upheaval produced when Immortal Truth is destroying erroneous and mortal belief. Chemicalization brings sin and sickness to the surface, as in a fermenting fluid, allowing impurities to pass away.

Patients unfamiliar with the cause of this commotion, and ignorant that it is a favorable omen, may be alarmed. If such is the case, explain to them the law of this action. As when an acid and alkali meet and ferment, bringing out a third property, so mental and moral fermentation change the material base of man, giving more spirituality to mortal sense, and causing it to depend less on material evidence. Thus Science, by the alchemy of Spirit, neutralizes disease.

This has been rewritten in the latest edition, as given below. The reader will see that it is once more declared that "*there is no disease.*" The italics are not ours, but are in Science and Health. The critical reader will observe a very curious inconsistency: "When the fear is destroyed the inflammation will subside," and, of course, the healer and the patient will see it subside!

[p. 421.]<sup>1</sup> If a crisis occurs in your treatment, you must treat the patient less for the disease and more for the mental disturbance or fermentation, and subdue the symptoms by removing the belief that this chemicalization produces pain or disease. Insist vehemently on the great fact which covers the whole ground, that God, Spirit, is all, and that



there is none beside Him. There is *no disease*. When the supposed suffering is gone from mortal mind, there can be no pain; and when the fear is destroyed, the inflammation will subside. Calm the

excitement sometimes induced by chemicalization, which is the alterative effect produced by Truth upon error, and sometimes explain the symptoms and their cause to the patient.

## EDITORIAL NOTES

Dr. R. A. Cushman has located in Fullerton.

Dr. Philip Chancellor will erect a handsome home in the Oak Knoll suburb of Pasadena.

Dr. George Grundy of Long Beach is taking an automobile tour through England and the continent.

Dr. Hoell Tyler of Redlands is devoting a few months to post-graduate work in New York City.

Dr. Samuel Outwater of Riverside is spending some time in the eye and ear hospitals of New York City.

Dr. W. S. Mortensen of the Palms has returned from his trip abroad and opened an office at Santa Monica.

Dr. John Franklin Fargo, age 76 years, died at his home in Hollywood, Los Angeles, on the evening of June 6th.

Dr. Emory Lanphear in a recent number of the *International Journal of Surgery* urges the advantages of hypodermic anaesthesia.

Six young women were graduated as nurses from the College of Medical Evangelists at Loma Linda on the evening of June 27th.

Dr. F. C. E. Mattison of Pasadena recently gave a dinner to Dr. Henry Sherry. He had as his guests Dr. Sherry and 44 other physicians.

Dr. Norman Bridge recently delivered an address before the City Club of Los Angeles. His subject was "Conservation for the Individual."

The Selection of Patients for a Tuberculosis Sanatorium is the title of a reprint by Dr. Charles B. Slade of 245 W. 74th St., New York City.

Over 200 physicians from San Francisco were in attendance at the Los Angeles meeting of the A. M. A. We did have a good time with them.

The Southern Pacific Ry. Co. is planning the erection in Los Angeles of a hospital that will cost \$100,000, for the exclusive use of its employees.

Dr. William A. Edwards of Los Angeles has been elected Vice-President of the Alumni of the Medical Department of the University of Pennsylvania.

Dr. Henry Sherry of Pasadena and Miss Gertrude Paine of Crafton were married at the home of the bride in Redlands on the evening of June 21st.

Dr. H. W. Levensgood of Santa Monica has been appointed lecturer on medicine in the College of Physicians and Surgeons of the University of Southern California.

Dr. Clayton L. Rich of Fullerton died unexpectedly on Sunday, June 4th. The funeral was largely attended, and the pall-bearers were all his fellow physicians.

Dr. L. M. Powers, Health Commissioner of Los Angeles, has issued a useful booklet entitled "Contagious and Infectious Diseases—How Handled by This Department."

Dr. Oscar Dowling, president of the Louisiana State Board of Health, who

brought the Louisiana Health Train to Los Angeles, made a host of friends in Southern California.

Merck's Manual of Materia Medica has just been issued in its fourth edition. Drop a postal to Merck & Co., New York City, and get a copy free. You will find it very useful.

Dr. Clara Marshall, dean of the Woman's Medical College of Pennsylvania, attended the Los Angeles meeting of the American Medical Association and was feted by many of her former pupils.

Dr. Henri Ap John of Yuma is physician-in-chief of the Yuma Project of the Reclamation Service; he has opened a reclamation service hospital at Yuma. Dr. W. E. Stapleton, formerly of Los Angeles, is in charge.

The Woman's Annual Banquet of the American Medical Association was held on Tuesday afternoon, June 27th. Dr. Elizabeth A. Follansbee of Los Angeles presided and Dr. Rose Talbott Bullard of Los Angeles was toastmistress.

The seventh annual banquet of the College of Physicians and Surgeons of the University of Southern California was held at the Union League Club June 15th. There were 100 present and Dr. C. W. Bryson was toastmaster.

The Clara Barton Hospital Training School for Nurses had their commencement exercises on the evening of June 21st. \* Miss Carrie Hazelwood, Miss Chamberlin, Miss Josephine Doherty and Miss Lillian Arnold received diplomas.

Dr. Wm. Brill and Miss Mary Hunsaker, both of Los Angeles, were married in St. Peter's Church, Belgravia, London, at noon Wednesday, June 14th. The bride was attended by her two sisters, and she was given in marriage by her mother.

Kappa Chapter of the Alpha Epsilon Iota Medical Woman's Fraternity entertained the visiting members of the American Medical Association at a banquet at the Union League Club. Dr. Charlotte Brown presided. Dr. Eleanor Seymour acted as toastmistress.

Large numbers of physicians who came to the Los Angeles meeting of the American Medical Association visited Redlands, where they were entertained by a committee of which Dr. Hoell Tyler was chairman. There were 600 visiting physicians at Redlands at one time.

Dr. Helen C. Putnam of Providence, R. I., while attending the meetings of the American Medical Association, took occasion to put in some spare moments working for votes for women. She said that "political dominance by sex is wholly an evil and an evil to both sexes."

The Riverside County Medical Association at its last meeting before the summer vacation gave a banquet at the Victoria Club and had their wives as their guests. Following the banquet Dr. F. M. Pottenger of Monrovia delivered an address on "How We May Know When Clinical Tuberculosis is Present."

Dr. Joseph McDowell Mathews of Louisiana, former president of the American Medical Association, was greeted in Los Angeles by hundreds of old friends while in attendance at the A. M. A. His nephew, Dr. John Y. Oldham of Los Angeles, was his host. He was the guest of honor at a dinner given at the Annandale Club by Dr. John R. Haynes.

The banquet of the American Medical Editors' Association, which was held on the evening of June 26th, was fully up to what would be expected of the Hotel Alexandria. Dr. Joseph MacDonald, Jr., was toastmaster, and one of the

most impressive talks of the evening was by Mr. James Slauson, president of the Los Angeles Chamber of Commerce, in response to the toast "Los Angeles."

Riverside did her share in entertaining the visiting physicians, fully a thousand of whom stopped off to see that beautiful city. The following Riverside physicians formed the Reception Committee: Drs. A. H. Atwood, C. S. Dickson, W. B. Payton, W. W. Roblee, C. Van Zwalenburg, Karl R. Sleeper, A. W. Walker, W. B. Sawyer, E. H. Sawyer, C. W. Girdlestone, H. R. Martin, G. E. Tucker, Thomas Griffith, J. M. Colburn and J. G. Baird.

Dr. Joseph MacDonald, Jr., president of the American Medical Editors' Association, was elected secretary and treasurer; Surgeon-General Walter Wyman of the United States Marine Hospital Service was elected president; Dr. Thomas L. Stedman, editor of the Medical Record of New York, was elected first vice-president, and Dr. Walter Lindley was chosen second vice-president; Dr. W. C. Abbott of Chicago and Dr. C. H. Kreidler of Cincinnati were elected members of the Executive Committee at the meeting held in Los Angeles June 26th.

Dr. Robert H. Babcock of Chicago was operated on successfully for gallstones on Saturday, June 3rd. When Dr. Babcock addressed the Los Angeles County Medical Society last winter he stated that he expected soon to undergo that operation. In writing to Dr. Barlow of the operation he stated that the gall bladder was of "hour-glass shape, greatly thickened and so infected that the two outer coats tore when grasped by the forceps. One jagged stone was removed and two tiny ones have come away since. It is draining finely."

Dr. W. E. Musgrave of Manila came the farthest to attend the A. M. A. of

any delegate, as he journeyed by way of Europe, making his trip about 15,000 miles. Dr. Musgrave was entertained by several old friends, one of the most delightful of these occasions being a dinner given in his honor by Dr. and Mrs. Chas. B. Nichols. Dr. Musgrave stated that nearly 500,000 Philippino boys and girls were in attendance at the public schools established by the United States, and that there is now more English spoken in the islands than Spanish.

Dr. Woods Hutchinson in the July Cosmopolitan attacks the Kindergarten, and says most positively that "the children would be better off out of doors and that no one should dream of allowing a child to do any kind of close work before it is seven years of age." There is really but one class of children that should go to kindergarten, and those are the children whose parents must go out to work. Such children are much better off under the care of a kindergarten than they are running the streets without any care; aside from that, the kindergarten is a mistake.

*The Los Angeles Daily Times* said: "No convention that has ever been held in this city, whether religious, fraternal, social, financial, scientific or political, conferred upon Los Angeles the benefits that are already beginning to result from the recent National Convention of the American Medical Association. \* \* \* Physicians are chief among the honorable of the earth. They the gentlemen and therefore truth-tellers by instinct and education. Love of humanity and a desire to alleviate human suffering surmount with them love of lucre or desire for personal advancement."

Where was Dr. Geo. H. Kress during the Los Angeles meeting of the A. M. A.? He was everywhere. He got efficient action all along the line. He was



the dynamic factor of the local committee.

The proceedings of the meeting of the Arizona Medical Association came too late to appear in the July issue of the SOUTHERN CALIFORNIA PRACTITIONER. The August number will be an Arizona number and will contain pictures of the officers of the association together with a full account of their meeting.

Much credit is due the Los Angeles Executive Committee of ladies who arranged for the entertainment of the visiting wives and daughters of the members of the A. M. A. This committee was as follows: Mrs. Walter Lindley, chairman; Mrs. W. Jarvis Barlow, Mrs. W. W. Beckett, Mrs. Norman Bridge, Mrs. H. Bert Ellis, Mrs. Jno. R. Haynes, Mrs. George H. Kress, Mrs. Andrew Stewart Lobingier, Mrs. J. H. McBride, Mrs. M. L. Moore, Mrs. O. O. Witherbee.

According to the Los Angeles Times, Dr. J. A. Munk, dean of the Los Angeles Eclectic Medical College and president of the National Eclectic Medical Association, in an address at the national meeting of the Eclectics at Louisville said that his "school was started as a protest against the murderous practice of allopathy about 100 years ago. Notwithstanding that allopathic medicine has been acknowledged a complete failure, still in the face of such evidence it assumes to be the embodiment of all knowledge and wisdom." Who would have thought that our fellow-townsmen would have talked like that? It borders on the libellous.

The Los Angeles County Medical Association at its meeting of June 8th elected the following new members:

Dr. D. D. Nice, Dr. L. J. Otis, Dr. Olga Murray, Dr. Joseph Choate, Dr. A. L. Holcomb, Dr. R. S. Cummings, Dr. D. N. Bacon, Dr. W. K. Robinson, Dr. Lyell

C. Kinney, Dr. Abram Hostetter, Dr. R. S. Tebbitt, Dr. E. Luther Trimmer, Dr. W. E. McLaughlin, Dr. West Hughes, Dr. Charlotte M. Brown, Dr. Charles T. Palmer, Dr. C. A. Sewall, Dr. Leopold Goldschmidt, Dr. J. S. Calder, Dr. Will S. Keys, Dr. W. C. Klein, Dr. L. M. Ryan, Dr. H. B. Yacoubi, Dr. Frank L. Norton, Dr. J. L. Lamb, Dr. L. Hart, Dr. H. H. Koons, Dr. Charles Shickle.

*The Tidings*, a Los Angeles Catholic publication, said: "Dr. John B. Murphy of Chicago, president of the American Medical Association, was the honored guest, last Tuesday night, at a largely attended banquet tendered him by the Newman Club of Los Angeles. The address proved of intense interest not only because of the questions of public health and sanitation so ably discussed, but because of the pleasure given the club by the presence of Dr. Murphy, whose election as president was a source of great pride because of his prominence as a staunch Catholic as well as a distinguished physician. His response to the welcome was an expression of his pride in his Church as well as in his profession."

Six hundred women have taken medical degrees in Great Britain. Dr. Garrett Anderson (a woman) is Mayor of Aldeburgh, England. The Royal London Colleges of Physicians and Surgeons opened, in 1909, all diplomas to women. The colleges of Ireland and Scotland admitted women years before, and the University of London had long granted the M.D. to women. The Royal Society of Medicine, founded in 1909, has from the beginning placed women on an equality with men. There are 300 medical women in India, two-thirds of whom are Indians. The Universities of Bombay, Madras and Calcutta have for many years granted medical degrees to women. Three women belong to the London County Council.

## BOOK REVIEWS

INTERNATIONAL CLINICS, a Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world, edited by Henry W. Cattell, A.M., M.D., Philadelphia, with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhredran, M.D., Toronto; Frank Billings, M.D., Chicago; Chas. H. Mayo, M.D., Rochester; Thos. H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipzig, Brussels and Carlsbad. Volume I. Twenty-first Series, 1911. J. B. Lippincott Company, Philadelphia and London. Price \$2.00.

The preceding twenty series have been of such character as to gain for this publication an international reputation, and an introduction so complete that the practitioner of medicine who does not know of the International Clinics may well be suspected of being an imposter.

"A further contribution to the treatment of syphilis with '606'" is presented by Sanittsrath W. Wechselmann, Director of the Dermatological Department of the Rudolph Virchow Hospital in Berlin, in an article especially written and translated for the International Clinics. In this article, Wechselmann states: "The technic we employ is as follows: '606' is dissolved by rubbing it up in a mortar with 1 to 2 cc. commercial sodium hydrate. Glacial acetic acid is added to this drop by drop until a smooth yellow paste is formed. This is diluted with 1 to 2 cc. of sterile distilled water and, by the addition of decinormal sodium hydrate, or 1 per cent. solution of acetic acid, according to its reaction, is exactly neutralized to litmus paper. As the acidity of this mixture, which is the principal factor in the causation of pain, is difficult to

neutralize in suspension, it is rotated in a centrifuge and the supernatant fluid decanted. The sediment is then taken up with physiological saline solution. This second suspension, rendered neutral if not already so, is drawn into a syringe and slowly injected under the skin at a point below the shoulder-blade that has been previously disinfected and painted with tincture of iodine."

"The cellular basis of the determination of sex" is discussed by Thos. H. Montgomery, Jr., Professor of Zoology, University of Pennsylvania. The first prospective sex value of an egg may be changed into another prospective sex value by the entrance of a sperm, certainly in some cases and possibly in all. Thus the sperm is sex-changing rather than sex-producing, it is a disturbing factor. And a sperm probably accomplishes this by modifying the metabolism of the egg, rather than by transmitting any particular sex determinants. Further instances of the changing of sex might be mentioned in the appearance of hermaphrodite individuals in species that normally have separate sexes; in the assumption of male characters by a hen, into whose veins sperm of the cock have been injected; and in the development of masculine qualities by elderly spinsters.

In the review of surgery, by Joseph Colt Bloodgood, M.D., of the Johns Hopkins University, there are some interesting introductory remarks, of which the following are excerpts. Progress in surgery depends, to a large extent, upon two factors—the earlier recognition of the surgical lesion and the technic of its treatment. The former is a medical problem just as much, and perhaps more so, than a surgical one. The medical aspects include the study of the disease which has for its object

the development of the clinical picture of that stage of the disease in which surgical treatment gives the best immediate and permanent result.

The earlier surgical lesions come for treatment, the more difficult the clinical diagnosis.

Kipling tells of a man who made a speech in the pioneer days in the Far West, "that he told the truth, but to the wrong audience." The man who told the truth was lynched by his audience. The physician, therefore, who is trained in the medical aspects of surgical diseases and who can recognize the lesion at a period in which surgical intervention promises the most successful, immediate, and permanent result, may tell the truth to the wrong patient who may leave him for some one else. If surgeons can demonstrate that operative intervention is one of little risk and discomfort, physicians will have no difficulty with their patients.

It is difficult to review a work such as the *International Clinics*. It is one of those publications that the practicing physician does not like to be without.

G. E. M.

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A MANUAL OF GYNAECOLOGY. By Thomas Watts Eden, M.D., C.M. Edin., F.R.C.P. Lond., F.R.C.S. Edin., Obstetric Physician with charge of out-patients, and Lecturer on Midwifery and Gynaecology, Charing Cross Hospital; Surgeon to in-patients, Queen Charlotte's Lying-in Hospital; Examiner in Midwifery and Diseases of Women to the University of Oxford, and to the Royal Army Medical College. With 272 illustrations in the text. P. Blakiston's Son & Co., Philadelphia. Price, \$5.00 net.

A work of 632 pages, rich with the aroma of the British Isles, and bearing much internal evidence of the author's experience and judgment.

Hemorrhage from the uterus, when severe, almost always has a local, not a general, cause. The following list of local causes of hemorrhage is given, which would appear to be of practical value in diagnosis:

I. Uterine: A. Body (exclusive of uterine pregnancy)—Extra-uterine pregnancy. Subinvolution and retention of products of conception. Chronic endometritis. Chronic metritis or fibrosis of the uterus. Mucous and fibroid polypi. Submucous and interstitial fibroid tumors. Adeno-myoma. Backward displacement. Chronic inversion. Carcinoma, sarcoma, chorion-epithelia. Acute or chronic pelvic inflammation, e. g., salpingitis, peritonitis. Increased intra-abdominal pressure, e. g. very large ovarian tumors.

B. Cervix—Mucous polypi. Fibroid tumors. Carcinoma and sarcoma. Traumatic ulceration, as from a neglected pessary. Tuberculous and syphilitic ulceration. 'erosion' (rarely).

II. Tubal (in rare cases): Interstitial tubal pregnancy; tubal cancer.

III. Vaginal: Lacerations; carcinoma; traumatic ulceration.

IV. Vulval: Lacerations; ulcerations; rupture of varicose veins; carcinoma; urethral caruncle, urethral cancer.

The discussion of the diagnosis of operability of cervical cancer is concise, emphasizing especially the degree of mobility of the uterus, and the changes in the uterine ligaments. Cases are certainly *inoperable* when profound anemia from bleeding, or signs of cachexia are present, when the cervix is fixed, and the ligaments thickened and fused with one another, or when fistulous communications have been formed with other organs. (Not all American operators would accept these limitations in toto.)

Cases are certainly *operable* in which the cervix has retained its mobility, the ligaments are little, if at all, thickened, and the general condition of the patient is unaffected, or at any rate little impaired.

Tuberculous disease of the female genital tract is discussed to the extent of half a dozen pages. The author accepts the post-mortem observation, that



genital tuberculosis is found in about 20 per cent. of cases of women dead of tuberculosis. Clinically speaking, in about 10 per cent. of cases of genital tuberculosis, the other organs of the body have been found to be free from the disease. In about 50 per cent. of all cases of genital tuberculosis, the Fallopian tubes are affected, usually secondarily.

The morbid conditions that may give rise to pruritus vulvae, are conveniently classified under three groups:

(1) Chronic discharges which irritate the vulval mucous membrane.

(2) Diseases primarily affecting the vulva.

(3) Toxic conditions and neuroses.

In the discussion of vaginal douching, Eden recognizes three purposes for which douching may be employed:

(1) To remove excess of secretions or discharges.

(2) To check hemorrhage from the uterus.

(3) To promote the absorption of inflammatory products.

It is a good little work for students and practitioners, complete but not exhaustive, emphasizing especially the pathological and clinical aspects of the diseases of women. Some parts of the work are rather striking. Thus, on pages 97 and 98, we find the following: "There are many types of vaginal speculum, but only two need be described: The most useful is the *tubular* or Ferguson's speculum; next may be mentioned the *duck-bill* or Sim's speculum."

G. E. M.

geon U. S. Vol.; First Lieutenant, Medical Reserve Corps, United States Army. Third Edition, Revised and Enlarged, with 176 Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1911. Price, \$3.00 net.

The aim of the author in this work is a modest one; "to give to the student and general practitioner of medicine part of the essential information relative to diseases of the ear, nose and throat." Throughout these pages this aim is fulfilled in a clear, comprehensive manner. Take as example the treatment of

#### MASTOID ABSCESS.

"The treatment of acute abscess of the mastoid process is divided into medical and surgical.

"By medical is meant the use of minor surgical methods and the application of antiphlogistic remedies which aid in the absorption of morbid products thrown out into the pneumatic spaces. When the case is seen early, an effort should be made to abort acute inflammation of the mastoid. Cold application, by means of the Leiter coil or cracked ice in rubber bags, is especially indicated. This should be continued for twenty-four hours without interruption. The patient should be absolutely confined to bed, given light diet and gentle purgative. If the pain and inflammation continue after forty-eight hours, mastoidectomy is indicated. For the elevation of temperature, acetanilid in five-grain doses should be repeated hourly until fifteen grains have been taken (Dench). The internal administration of urotropin in five-grain doses, every three hours, is of special value. On account of the possibility of irritating the kidneys, the dose should be two grains for children. The drum should be incised if the drainage is not complete, the incision extending from Shrapnell's membrane to the floor of the middle ear. Constant attention should be directed to freeing the middle ear of any purulent discharge, by irrigating with a warm

MANUAL OF DISEASES OF THE EAR, NOSE AND THROAT. By John Johnson Kyle, B.S., M.D., Professor of Otolaryngology and Rhinology, Indiana University School of Medicine; Otolaryngologist and Laryngologist to City Hospital, St. Vincent's Hospital and City Dispensary, Indianapolis; Fellow of The American Academy of Ophthalmology and Oto-Laryngology and Fellow of the American Laryngological, Rhinological and Otolaryngological Society; member of the Association of Military Surgeons of the United States; Late Major and Sur-

lysol, one-half drachm to a pint of warm water. The pneumatic otoscope may enable us to remove a great amount of pus from the middle ear.

Two surgical procedures are at our disposal when there is abscess formation with necrosis; the simple and the radical mastoid operation (see Technique of Radical Mastoid Operation). The great majority of cases of suppurative mastoiditis require only the simple mastoid operation, that is, the opening of the abscess cavity and exposure of the antrum. The results of this operation are more satisfactory, the wound heals more quickly, leaving a small scar."

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PUBLIC HYGIENE. By THOS. S. BLAIR, M.D., Neurologist, Harrisburg, Pa., Hospital. Author "A Practitioner's Handbook of Materia Medica," "A Practitioner's Handbook of Modern Medical Treatment," etc. Assisted by numerous contributors. In Two Volumes. With 158 Illustrations. Richard G. Badger, The Gorham Press, Boston.

This is a comprehensive work different in character from any that has gone before. Dr. Blair says: "Public hygiene has developed too much as a specialty and needs the tempering conclusions of the whole body of the medical profession. \* \* \* The effort is here made to present reliable data upon the present very creditable development of this subject and in doing so the author is more editor than original writer."

About thirty prominent men are contributors. The following are some of the chapters: The Family Versus the Community; Hotels, Lodging Houses, Public Buildings; School Inspection and College Sanitation; Penal Institutions and Hospitals for the Insane; Maternities; Places of Amusement and Dissipation. In speaking of the dangers of contracting tuberculosis in public halls there is the following verse written by Samuel Garth in 1699:

"Whilst meager Phthisis gives a silent blow;

Her stroaks are sure but her advances slow.

No loud alarms nor fierce assaults are shown;

She starves the fortress first, then takes the town."

Then come chapters on Slums and Town Nuisances; Special Rural Hygiene; State Departments and Boards of Health; Boards of Health and Sanitary Officers; Army and Navy Sanitation; the Coroner and the Physician; Quarantine; Infectious Diseases; Immunity; Epidemics; Disinfection; Tuberculosis Sanatoria; Home Hygiene; Pure Drugs and Foods; Public Works and Corporations; Public Carriers and Sanitation. In the last chapter mentioned two pages by Dr. John R. Haynes appear taken from the Michigan Public Health. In commenting on Dr. Haynes' paper the author says: "Dr. Haynes writes from a section to which the tuberculous resort, and he sees many cases, doubtless, of the aggravated character described; but railroads must meet *average* conditions." The volumes are full of interest, and should be in every public library and in the library of every person specializing in State medicine. While thus commending the work we must protest that the author puts it too mildly when he says "railroads must meet *average* conditions."

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HOSPITAL MANAGEMENT. A Hand-Book for Hospital Trustees, Superintendents, Training School Principals, Physicians, and all who are actively engaged in promoting hospital work. By Charlotte A. Aikens. Author of "Hospital Training-School Methods and the Head Nurse;" "Primary Studies for Nurses;" "Clinical Studies for Nurses." 12 mo. of 488 pages, Illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$3.00 net.

This is a book that stands out by itself. It is written in a direct style and gives much in detail as to hospital building and hospital management. Any person who thinks of opening a hospital or anyone who is already in a hospital will find it of practical use.

In speaking of the style of the buildings the author says that twenty years ago when bacteriology first began to influence hospital construction, the one-story pavilion became much in vogue on the continent, but did not greatly influence the building of hospitals on the British Isles or in America. The Virchow Hospital of Paris covering 96 acres has 63 separate buildings with a capacity of 1650 beds. The cost was \$2250 per bed. The tendency has recently been to construct multi-storied hospitals in central locations. A recent example of this is the new Jefferson Medical College Hospital in Philadelphia. This building is eleven stories in height, cost \$1,000,000 and accommodates 300 patients.

In a statement of the cost of the building of a large number of hospitals, it is shown that the average cost is about \$2000 per bed.

The writer impresses especially the importance of keeping patients in the open air as much as possible in order not only to get the immediate effect of the fresh air on the patient, but also in aiding in thoroughly purifying the hospital rooms. The moving of a patient from a room or a ward to the roof or to a garden can readily be done by putting the patient in a wheel chair or if the patient cannot stand that, by putting the bed on trucks that are made for that purpose.

This work is the best that we have seen up to date, but there should be a work written especially for the benefit of those who manage private hospitals, as there are today more private hospitals in the United States than public institutions.

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A MANUAL OF CLINICAL DIAGNOSIS.  
By James Campbell Todd, M.D., Associated Professor of Pathology, Denver, and Gross College of Medicine, Denver. 12 mo. of 319 pages with 131 Text Illustrations and 10 Colored Plates. Philadelphia and London: W. B. Saunders Company, 1908. Flexible Leather, \$2.00 net.

A TEXT-BOOK OF SURGICAL ANATOMY  
By William Francis Campbell, M.D., Professor of Anatomy at the Long Island College Hospital. Second Edition Revised. Octavo of 675 pages, with 319 Original Illustrations. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

This very practical work will prove of value to every general practitioner and every surgeon who has it at his command. It teems with comprehensive statements a few of which we herewith quote:

The relations of the common carotid in the neck are of great surgical importance. The vein, when full of blood, is not only external to the artery, but is in front of it and nearly covers it completely. A thorough denudation of the artery is necessary before passing a ligature.

The thyroid cartilage is the principal landmark in all operations on the larynx.

Hemostasis should be complete before opening the trachea.

Total extirpation of the thyroid gland should never be done.

Resection of the cervical sympathetic ganglia for exophthalmic goiter has been exploited by Jounesco, and Deaver considers it the operation of choice.

Cancer of the breast spreads by way of the lymphatics, and a cancerous breast, from a surgical standpoint, is co-extensive with the lymphatics that drain it.

Wounds of the thoracic duct, though rare, may occur during the extirpation of tuberculous or cancerous glands. They are evidenced by a sudden gush of limpid whitish fluid, which may be effectively treated by a gauze tampon. Remember the thoracic duct is so thin and transparent that it easily escapes detection.

The cornea is the most frequent site of pathologic lesions within the eyeball.

Deep wounds of the ciliary body almost always necessitate enucleation of the globe.



The section on the mastoid operation is particularly complete.

Kocher's method of reducing dislocations of the shoulder is thoroughly illustrated.

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VETERINARY ANATOMY. By Septimus Sisson, S.B., V.S., Professor of Comparative Anatomy, Ohio State University, College of Veterinary Medicine. Octavo of 826 pages, 528 Illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$7.00 net; Half Morocco, \$8.50 net.

A man in Los Angeles was recently arrested by the S. P. C. A. for giving a suffering horse Christian Science treatment. The horse died and the judge dismissed the case.

When we pick up a monumental work such as this our pleasure is somewhat dampened by the thought that there is a large section of the people of the United States who believe time devoted to Anatomy and Physiology is time wasted, and that the benefits claimed to be derived from sanitation and hygiene are mythical. The influence of this cult who believe there is no pain, no body, and no digestion has, we have no doubt, reached its zenith, and the plodding, earnest work of the real man of science will again receive the recognition that is his due.

The volume before us gives the anatomy of the horse, pig, dog and cat. There are 528 illustrations. To be a "horse doctor" was formerly a term of opprobrium, but to be a veterinary surgeon is now a title that is truly honorable. It means a scientific education as a foundation.

Veterinary anatomical nomenclature is at present quite chaotic in English-speaking countries. In this work an attempt is made to eliminate some terms which do not appear to the author to fulfill any useful purpose, and others which are clearly erroneous or otherwise undesirable. In many cases the terms agreed upon by the Congresses at Baden and Stuttgart are adopted either in the original Latin or

in anglicized form; otherwise these terms are added in parenthesis. The author favors the substantial adoption of this terminology, but considered it desirable to offer a sort of translational stage at present.

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WHAT TO EAT AND WHY. By G. Carroll Smith, MD., of Boston, Mass. Octavo of 310 pages. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$2.50 net.

In obesity, arterio-sclerosis, diabetes and in fact all pathological conditions the author assists in arranging a proper diet by showing:

1. How much protein should be given.

2. What the proportion of fats and carbohydrates shall be.

The chapter on Obesity is very interesting. He maintains that any person over fifty who is ten pounds over weight should reduce his weight by a slow method and thus add years to his efficient life.

The following are given as causes of obesity:

1. Ingestion of fat-producing food in excess, in which is included alcohol.

2. Abstinence from exercise; it has proven that marked muscular exertion decomposes fat.

3. Rest in bed, with excessive sleep.

4. Sexual abstinence. (a) Women become corpulent during the climacteric period. (b) Castration in animals and man leads to obesity.

5. Residence in warm climates.

6. Drinking large quantities of water through lessening metabolic changes.

7. The presence of fat in excess accomplished in part by restriction of muscular movement, and in part by the lessened heat radiation from the fat body, thus retarding the combusive process going on in the organism.

8. An inherent, or hereditary faulty cell activity.

In both the treatment of obesity and gout the author recommends the mini-

imum of bread and the maximum of potatoes. The chapters on Diet in Typhoid Fever and Diet in Diseases of the Liver are especially interesting.

**TUBERCULOSIS AS A DISEASE OF THE MASSES AND HOW TO COMBAT IT.** Seventh American Edition, Enlarged and Revised with 64 Illustrations. Motto: To combat consumption as a disease of the masses successfully requires the combined action of a wise government, well trained physicians, and an intelligent people. Prize Essay by S. Adolphus Knopf, M.D., New York, Professor of Phthisio-therapy at the New York Post-Graduate Medical School and Hospital; Director in the National Association for the Study and Prevention of Tuberculosis; Associate Director of the Clinic for Pulmonary Diseases of the Health Department; Visiting Physician to the Riverside Hospital Sanatorium for Consumptives of the City of New York, etc. The "International Congress to Combat Tuberculosis as a Disease of the Masses," which convened at Berlin, May 24th to 27th, 1899, awarded the International Prize to this work through its Committee on July 31st, 1900. First American Edition, 1901; Seventh American Edition, 1911. There have been issued 27 Foreign Editions in 24 different languages. Published by "The Survey," 105 East 22nd Street, New York. Also for sale by Fred. P. Flori, 16 West 95th Street, New York, 1911.

The above title page tells the story of this useful book. Dr. Knopf sends this out as a missionary for all lands. He has arranged with the publishers so that it is sold at cost—25 cents, paper cover, 50 cents, cloth.

**GONORRHEA IN THE MALE.** A Practical Guide to its Treatment. By Abr. L. Wolbarst, M.D., Consulting Genitourinary Surgeon, Central Islip State Hospital; Visiting Genitourinary Surgeon, People's Hospital, West Side German Dispensary and Beth Israel Hospital Dispensary; Professor of Genitourinary Diseases, New York School of Clinical Medicine; Member American Urological Association, etc., etc. Published by the International Journal of Surgery Co., New York, 1911. Price, \$1.00.

In speaking of the internal treatment of acute urethritis the author says: "Methylene blue in doses of one grain three or four times daily, constitutes, in my experience, the most valuable adjunct to the local treatment. The local treatment should begin at the earliest moment. I usually begin with a 2½ per cent. solution of argyrol, 1 per cent. nargol, or ½ per cent. protorgol once

daily, unless the discharge is very annoying, in which event I give a second injection. These are retained at least ten or fifteen minutes—the longer the better; the patient lying on his back. This is a practical little book evidently written from an abundant experience.

**THE CARE OF THE BABY.** By J. P. Crozer Griffith, M.D., Clinical Professor of Diseases of Children in the University of Pennsylvania. Fifth Revised Edition. 12 mo. of 455 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$1.50 net.

The successive editions of this useful work have been from time to time fully reviewed in the pages of the *SOUTHERN CALIFORNIA PRACTITIONER*. This, the fifth edition has been completely revised and brought down to date.

It treats of the Care of the Baby in Health and the Baby in Sickness. This is a work for the physician, for the student, and a volume that would be especially valuable to the nurse; in fact, it may also safely be commended to the intelligent laity.

**YEAR-BOOK OF THE PILCHER HOSPITAL,** for the period from March 16, 1910, to March 31, 1911. Being the First Year of the Operation of the Hospital. 145 Gates Avenue, Corner of Grand Avenue, Brooklyn, New York. 1911.

This is a valuable work of 700 pages giving well illustrated reports of a year's surgical work. Dr. L. S. Pilcher, the head of this hospital, is one of the leading surgeons of Brooklyn and editor of *The Annals of Surgery*.

**BIER'S HYPERAEMIA TREATMENT IN SURGERY, MEDICINE AND ALL THE SPECIALTIES: A MANUAL OF ITS PRACTICAL APPLICATION.** By Willy Meyer, M.D., Professor of Surgery at the New York Post-Graduate Medical School and Hospital, and Professor Dr. Victor Schmieden, Assistant to Professor Bier at Berlin University, Germany. Second Revised Edition. Octavo of 280 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$3.00 net.

The hearty commendation we gave the first edition of this work applies with still more emphasis to this revised edition.

**THE PRACTICAL MEDICINE SERIES.**

Comprising Ten Volumes of the Year's Progress in Medicine and Surgery, under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School; Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume III, the Eye, Ear, Nose and Throat, Edited by Casey A. Wood, C.M., M.D., D.C.L.; Albert H. Andrews, M.D.; Gustavus P. Head, M.D. Series 1911. Chicago: The Year Book Publishers. 180 N. Dearborn Street.

This is one of a series of ten issued at about monthly intervals and covering the entire field of medicine and surgery. Price \$1.50 per volume or \$10 for series of ten. While this series is primarily intended for the general practitioner, yet the specialist will find much to interest him.

**A TEXT-BOOK OF OBSTETRICS: INCLUDING RELATED GYNECOLOGIC OPERATIONS.** By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Sixth Revised Edition. Octavo of 992 pages, with 847 illustrations, 43 of them in colors. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

In this edition the work has been thoroughly revised. As almost all the diseases of women are consequences or complications of childbirth, more attention has been paid to the diseases of the genital organs associated with childbirth, as their preventive treatment at least is in the hands of the obstetrician. Many of the old illustrations have been replaced by new ones.

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## MISCELLANEOUS

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**DEATHS OF PHYSICIANS IN 1910.**

During 1910 the deaths of 2324 physicians in the United States and the Dominion of Canada were noted in The Journal. Reckoning on a conservative estimate of 137,000 physicians, this is equivalent to an annual death rate of 16.96 per 1000. For the eight previous years the death rates were as follows: 1909, 16.26; 1908, 17.39; 1907, 16.01; 1906, 17.2; 1905, 16.36; 1904, 17.14; 1903, 13.73, and 1902, 14.74. The average annual mortality for the period from 1902 to 1910, inclusive, was therefore 16.21 per 1000. The age at death varied from 22 to 97, with an average of 59 years, 11 months and 4 days. The general average since 1902 is 59 years, 5 months and 28 days. The number of years of practice varied from 1 to 72, the average being 32 years, 8 months and 9 days. The general average for the past six years is 31 years, 5 months and 29 days. The chief death causes in the order named were "heart disease," cerebral hemorrhage, pneumonia, violence and nephritis.

**Causes of Death.**—There were 335 deaths assigned to general diseases; 378 each to diseases of the nervous and circulatory systems; 231 to diseases of the respiratory system; 144 to diseases of the digestive system; 220 to diseases of the genito-urinary system; 172 to violence; 123 to senility; and 15 to unknown or vaguely described diseases. Among the principal assigned causes of death were "heart disease," 245; cerebral hemorrhage, 242; pneumonia, 193; nephritis, 166; senility, 123; accidents, 114; tuberculosis, 92; malignant disease, 77; after surgical operations, 71; angina pectoris, 57; paralysis and suicide, each 48; septimemia, 38; arteriosclerosis, 34; diabetes, 32; "uremia," 31; typhoid fever, 30; appendicitis, 25; gastritis, 22; anemia, 18; paresis, 17; myocarditis, 14; cirrhosis of liver, 13; cholelithiasis, 12; influenza, erysipelas, meningitis and intestinal obstruction, each 11; homicide and insanity, each 10; rheumatism and gastric ulcer, each 9; locomotor ataxia and peritonitis, each 8; endocarditis and pros-



tatitits, each 7; paralysis agitans, 6; aneurysm and pleurisy, each 5; dysentery, 4; tetanis, alcoholism and drug addiction, epilepsy, neuritis and pericarditis, each 3; typhus fever, anterior poliomyelitis, smallpox, scarlet fever, diphtheria, pellagra and gangrene, each 2; and yellow fever and Asiatic cholera, each 1.

The causes assigned for the 114 deaths from accident were railway casualties, 24; automobiles, 17; falls and poisons, each 15; horses and vehicles, 10; drowning, 7; fractures, 5; burns and exposure, each 4; ptomaine poison, 3; sunstroke, gunshot wounds and asphyxia, each 2; and X-ray burns, poisonous gases and mines, each 1. The 48 physicians who ended their lives by suicide selected the following methods; firearms, 22; poison, 18; cutting instruments and strangulation, each 3; and asphyxia and drowning, each 1. All of the 10 homicides were due to gunshot wounds, and of these 3 occurred in feuds or affrays.

**Ages.**—Of the decedents 30 were between the ages of 91 and 97; 214, between 81 and 90; 456, between 71 and 80; 497, between 61 and 70; 434, between 51 and 60; 323, between 41 and 50; 235, between 31 and 40; and 83, between 22 and 30. The greatest mortality occurred at the age of 65, when 60 deaths were recorded; at 69 and 70, when 59 deaths occurred, at 72, when 57 died. There was 1 death each at 92, 94 and 97 years of age; 2 at 22; 4 at 96 and 5 each at 90 and 93.

**Years of Practice.**—By periods of ten years the deaths were as follows: In the first decade, 237; second decade, 338; third decade, 469; fourth decade, 497; fifth decade, 395; sixth decade, 275; seventh decade, 71; and eighth decade, 1, who had been in practice for 72 years.—*Journal A. M. A.*

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*Sample and literature on application.*

Japan is not lagging behind in the fight against tuberculosis. The Japan Health Association has over 200,000 local members and carries on a campaign of lectures in the cities and towns of the country. Tuberculosis is increasing in Japan, due chiefly, Prof. S. Kitasato of Tokyo says, to the rapid development of the factory system of industry, the introduction of modern methods and manners of civilization, and the increasing acuteness of the struggle for existence.

## CHOREA A SYMPTOM, NOT A DISEASE.

Swift (*American Journal of the Medical Sciences*, September, 1909) maintains that chorea should be looked upon as a symptom in the same way as jaundice, convulsions, or dropsy, and not as a definite disease. Chorea

may be divided into two classes. In one the movements are a symptom of some infection, such as malaria, or with the pneumococcus, the bacillus typhosus, or the micrococcus rheumaticus, in many of which cases there is an accompanying heart lesion. Treatment depends upon the nature of the infecting organism, but absolute rest, both mental and physical, is essential. In the other group the cause is not so definite. The patients are usually young girls between seven and fourteen years of age. They are generally in a condition of bad health and anemic, and have been subjected to some mental or physical strain. The condition is quite analogous to hysteria in older people. All the treatment necessary is rest, good feeding and tonics.—[British Journal of Children's Diseases.

#### GENIUS.

Lombroso, in his effort to prove that genius is pathological in its origin and essential nature, cites a very formidable array of famous names, which he thinks furnishes substantial ground for his premises. That the mind of a man of genius is different from that of an ordinary man is admitted, and that this difference is due to a peculiarity of brain structure is only a logical conclusion. In all ages the element of abnormality has been regarded as a factor in genius. "Great wit to madness sure is near allied," sings the English poet, and the pathologist of today cannot but agree, despite his inability to determine the essential alteration in brain structure underlying it. The Italian anthropologist enjoyed a well-earned reputation for permitting his enthusiasm to run away with his scientific deductions; as a consequence he frequently found himself in a very embarrassing situation. In his "Man of Genius" it is apparent that he seeks for some pathological condition in the subject and promptly attributes genius

to this constitutional defect whether it be epilepsy or ingrowing toe-nail. The fact that St. Paul was epileptic, thought Lombroso, was sufficient to explain his genius as a religious teacher. Because Napoleon was subject to visual hallucinations he was a great general, and that Byron was rickety and club-footed was the cause of his being a great poet. Captious critics might inquire why these lesions produce generals, poets and teachers only in isolated cases, while the majority so afflicted are anything but men and women of genius. In leaving Lombroso, it may be well to say that whatever may have been his deficiencies, he was never guilty of writing volumes of pseudo-scientific stuff to prove that all men of note were afflicted with defects of vision which had never been properly corrected.

"Genius," says Carlyle, "is a capacity for taking infinite pains," and Edison echoes, "Inspiration is perspiration;" but Huxley, in commenting on Newton's statement that he made his great discoveries by intending his mind on them, is led to say that a man of ordinary mind might intend it until his skull cracked without accomplishing anything but his own undoing. We are led then to say that genius is inspiration plus perspiration, that a capacity for taking infinite pains coupled with a peculiar brain organization produces a work of genius, and that either of these factors developed to excess will land the possessor in a madhouse.

Again, Gray's "Elegy" reminds us that genius is not only brain structure and prodigious industry, but that environment has much to do with its manifestation. It is probable that many "hearts pregnant with celestial fire" are compelled to keep these fires banked because they are placed in circumstances where their illumination is not required nor appreciated.—[The Lancet—Clinic.

“scientific pharmacy is the result of thought, care, expense and time.

These four qualifications combined and devoted to one product produce uniformity, reliability and dependability.

A physician exercising his diagnostic skill is entitled to a remedy which is the outgrowth of scientific pharmacy.

In inflammatory diseases more so than in any other, the desideratum is prompt and immediate action in order to inhibit septic progression.

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Antiphlogistine is such a product, wherein is concentrated every effort to produce a remedy in which the profession can place its confidence.

That they have so responded is proven by its extensive employment in every kind of inflammation where hot moist heat is tantamount to a cure.”



**TETANUS.**

In twelve years' record in the city of Havana there occurred 2,909 deaths from tetanus, of which number, 87.49 per cent, or 2,545 were from tetanus neonatorum and 364, or 12.51 per cent., were of traumatic and idiopathic origin. In the year 1901, in Havana, 5,720 deaths are recorded, 4,169 white, and 1,551 colored. One hundred and forty-eight cases of tetanus occurred during the year, 91 white and 57 colored, which would be one death from tetanus in every thirty-nine (38.65) deaths; or by races, one white in every forty six (45.74), and one colored in every twenty-seven (27.21), a high mortality rate. As in Jamaica this is not due to traumatic and idiopathic tetanus. Of these 148 cases, 86.49 per cent, or 128 were tetanus neonatorum, and only 20, or 31.51 per cent. belonged to the traumatic and idiopathic variety. This is an average of one death from traumatic and idiopathic tetanus in every 286 deaths during the year, which is five and one-half (5.43) times more frequent than in temperate zones. We find also in these 5,720 deaths from all causes that 1,453, or nearly 26 per cent. (25.40), were children under one year of age. This would give a death from tetanus neonatorum in less than every twelve (11.35) births. Also 5,721 births are recorded with a death

from tetanus neonatorum in every forty-five (44.69) deliveries.—Proceeding Canal Zone Medical Association 1909.

When the International Congress on Tuberculosis meets at Rome next September, representatives of over thirty national and provincial associations organized to fight tuberculosis will be present. Among the associations which will be represented are the United States, Canada, Cuba, Trinidad, England, Wales, Ireland, Norway, Sweden, Denmark, Russia, Germany, Belgium, Holland, France, Switzerland, Portugal, Italy, Greece, Bulgaria, Hungary, Austria, New Zealand, Japan, Cape Colony, Argentina, Brazil, Chile, Newfoundland, Roumania, Uruguay and Venezuela.

According to a recent report by Dr. Conrad Biesalski, of Berlin, there are 75,000 cripples in the German Empire out of a population of 60,500,000. Over 50,000 of the cripples are in need of proper treatment. Dr. Biesalski states that in 15% of the cripples examined their deformity was due to tuberculosis of the bones and joints, and that there were 10,000 such children in great need of medical treatment. He advocates the establishment of seaside sanatoria for this latter class of cripples.

## CHICAGO POLICLINIC AND HOSPITAL

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# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, AUGUST, 1911.

No. 8

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and DR. WILLIAM A. EDWARDS.

## ARTHRITIS DEFORMANS, POLYARTHRITIS RHEUMATICA AND ITS TREATMENT WITH VACCINES.\*

A PRELIMINARY REPORT BY HENRY HERBERT, M.D., VISITING PHYSICIAN TO  
THE LOS ANGELES COUNTY HOSPITAL, ASSOCIATE PROFESSOR OF MEDICINE  
MEDICAL DEPARTMENT UNIVERSITY OF SOUTHERN CALIFORNIA.

Before entering into the integral part of my studies and observations in this very important domain of medicine, I must confess, that the present and past literature upon this subject throws very little light upon the aetiology, the clinical course, and the treatment of these conditions, and there is even quite a confusion prevalent regarding its proper nomenclature. This fact is the more obvious since polyarthritis is of such a common occurrence among internal diseases, not only as disease *sui generis*, but also as symptom complicating many other diseases.

The term "Rheumatism" is an obsolete one; it is largely responsible for the confusion in practice and in literature, as it signifies nothing special, at the same time embracing within its meaning all kinds of painful conditions of various origin. And in sifting such rheumatic conditions, I shall endeavor

to combine the pathological and bacteriological factors into a clinical entity and apply the proper nomenclature without radically deviating from terms generally accepted.

The predominant feature of all rheumatic conditions is *pain*. This pain may be felt in the *joints*, around the joints, in synostoses, in synchondroses and in tendinous attachments to bones, like capsules, tendons, and ligaments. Accordingly we distinguish pains due to arthritis, peri arthritis and fibrositis, or pains due to all types combined. Rheumatic pains are felt in rest, are elicited on action and on pressure; their onset is slow or sudden, subject to all kinds of incriminating factors, especially to dietary, thermic and climatic influences. Their duration and intensity is very variable.

Two factors seem to be responsible for the pain: Invasion of the respective tissues by bacteria or by toxins.

\*Read before the Los Angeles County Medical Association, May 19, 1911.

The following bacteria are foremost responsible for invasions of joints: Streptococcus, gonococcus, pneumococcus and tubercle bacillus; they cause mono- or polyarthritis. Infection is carried on by the circulation and I wish to state that in this instance I shall omit traumatic lesions and traumatic infections of joints.

Under the heading of toxemic polyarthritis, I distinguish four types: (a) The symptomatic "rheumatism," that follows in the wake of infectious diseases; (b) The rheumatic polyarthritis, without a visible infection; (c) Toxaemic rheumatism due to various forms of auto-intoxication; (d) Arthritis deformans.

Each type differs clinically from the other; the rheumatic condition due to infection has a septic course, fever and rapid pulse and sometimes marked changes in and around the joints, changes which will not become permanent.

The second group is identical with the first one, except that it has no visible infective focus and it persists longer, whereas the symptomatic polyarthritis disappears with the disappearance of the infection.

The rheumatic conditions due to various forms of auto-intoxication show a slow pulse, no fever and rarely any changes in the joints.

Arthritis deformans runs an irregular course, shows fever off and on, is identical with polyarthritis rheumatica plus deformities.

The symptomatic polyarthritis complicates infectious diseases in the form of rheumatic pains all over the body, of more or less intensity without any deformities of joints, and its duration is limited to the duration of the general or special infection, i. e., with the cessation of infection the rheumatic pains cease. This form of rheumatic pain I would call symptomatic polyarthritis. Foremost among infectious diseases

complicated by symptomatic polyarthritis are tonsillitis, influenza, meningitis, inflammatory rheumatism, pneumonia, tuberculosis, diphtheria, local and general sepsis. MacAllister<sup>1</sup> mentions chronic colitis as an aetiological factor causing toxaemic arthritis or peri-arthritis. He mentions also a perverted thyroid secretion as a probable cause of polyarthritis. Forms of polyarthritis rheumatica with fever I have observed lately in a case of cholelithiasis in a woman of 35, and another in a case of an ulcer of the stomach in a girl of 20. In another case of intestinal colic due to an acute catarrh the pains over the vertebral joints equalized in intensity those of the intestines; the vertebral pains disappeared promptly with the cessation of the fever and of the intestinal colic. As a proof that polyarthritis is due to toxins, the fact may be observed that no bacteria are found in the joints of diffuse polyarthritis, and that injections of respective vaccines or antitoxins produce identical rheumatic conditions and pains. Anyone familiar with the vaccine treatment will concur with me in this observation, by comparing the reactive symptoms with these rheumatic pains and symptoms in infectious diseases. The polyarthritic pains derived from infectious diseases follow a peculiar law: If an infection is general, i. e., if the infective agent circulates in the blood, the joints and fibrous tissues of the trunk, neck and head are FIRST affected, then if the infection lasts longer, the extremities are also affected. If an infection is *localized*, i. e., in form of an abscess or an acute or chronic inflammation in the pelvis, appendix, head or neck, it is remarkable to note that the pains spread in the beginning from that focus into the nearby joints and on the same side of the body; later on, the pain may spread all over the body. Under the heading of polyarthritis as a symptom, I may mention that septic infec-



tion of joints like inflammatory rheumatism may be complicated; just as other infectious diseases, by painful peri-arthritis and fibrositis. This will explain why sodium salicylate, which is considered as a "specific" in inflammatory rheumatism has sometimes no effect at all on the pains in other forms of rheumatic diseases. The salicylates do alleviate the pain in the joints but they are of no use in extra articular conditions.

Apart from this symptomatic form of rheumatism there are two types which comprise the bulk of rheumatic fevers; one resembling symptomatic rheumatism, only in a more violent form, which without any visible cause, runs a septic course, has an acute onset, with chills, fever and pains all over the joints and fibrous tissues; the articular regions are very tender, sometimes swollen and red. Its duration is variable—it may last a few days and even many years. This type of rheumatic fever is very common; it has no cardiac complications, has no deformities or ankyloses. Besides the pain there is weakness, anorexia, and acceleration of pulse to be noted.

The other type, the so-called "arthritis deformans," is identical with the former one, but has marked and final changes in joints. Both run a septic course of unknown origin and should be classed among the "cryptogenetic" diseases, a term introduced by Leube and clinically expostulated by G. Bacelli. (Policlinica Rom. March, 1911.) Innumerable cases of the first type are seen and familiar to every physician, but this form of rheumatism called "*polyarthritis rheumatica*" has no clinical standing and there prevails a diversity of opinion regarding its proper conception and definition. The most favorable expression for it is "chronic rheumatism" or an "acute exacerbation" of a chronic rheumatism. The erroneous idea prevails, that it is

a sequel of an inflammatory rheumatism. Right here I wish to state that inflammatory rheumatism never runs such a course. Inflammatory rheumatism is a cyclic disease like typhoid or any other infectious disease with a certain limitation and termination. The confusion arises also from a false interpretation of a previous primary attack; if one happens to observe such an attack, one can easily differentiate it from the inflammatory rheumatism by its type of fever—it being much lower in *polyarthritis rheumatica*, by the multiplicity of joints affected, by lack of complications on the part of the heart and serous membranes. Locally the pains are less, the swelling and redness is not so intense. The shape of swelling is round in inflammatory rheumatism—oval in *polyarthritis*. Even the therapeutic test of sodium salicyl is of value in differential diagnosis. In inflammatory rheumatism there is invariably instantaneous relief from sodium salicylate, whereas the pain is even aggravated in *polyarthritis*.

The "cryptogenetic" theory of these two types of rheumatism is strengthened by various reports of so-called spontaneous cures of arthritis deformans after the removal of septic foci. In this instance I wish to cite an article of Dr. Edward Ochsner<sup>2</sup> in which he reports several cases of arthritis deformans cured after appendectomy. It is plain that in those cases a hidden infective focus had flooded the system with toxins and was responsible for the chronic arthritis. Dr. P. Schichhold<sup>3</sup> in his article on the tonsillar origin of so-called rheumatic affections clearly demonstrates that pus in the crypts of the tonsils is the cause of rheumatic diseases, and that aside from the tonsils, other organs may become the origin of such diseases.

Another valuable contribution to the bacterial aetiology of arthritis is given by K. W. Goodby<sup>4</sup> in his article "The

Association of Disease of the Mouth With Rheumatoid Arthritis and Certain Other Forms of Rheumatism," in which he states that in "diseases of the jaws a streptobacillus is present, pure cultures of which inoculated into or around the knee joints of rabbits have produced symptoms similar to those found in arthritis deformans." He reports also amelioration and disappearance of the arthritic symptoms after the use of the autogenous vaccine prepared from the streptobacillus.

From my own experience I may cite similar cases. Mr. R. S., 45 years of age, claims to have been sick for about ten years with pains in head, neck, vertebra and "all over the body." The pains in the head continued steadily for nearly a year and a half; he has been a poor sleeper for two years, waking up every morning between 3 and 5. On examination I found tenderness and even pain over synostoses of the left side of the head, the left jaw, and slight pain over the neck; headaches on top and left side of head. On further examination I found pyorrhea over the last two molars of the left upper jaw, a condition which may have persisted for years. After extraction of the two badly diseased teeth and proper evacuation of pus, all the symptoms of arthritis disappeared. A similar case is that of Mrs. N. D., who had polyarthritides or rheumatic fever and headaches for about fifteen or twenty years. She suffered from diffuse chronic polyarthritides or rheumatic pains, more marked in the region of head, neck and sternum of the left side. On close examination I found a fistula in the upper jaw, from whence drops of pus had been oozing for years. She was accordingly referred to a specialist and a chronic empyema of the antrum was found. After proper drainage only a relief of all symptoms followed, the primary focus of infection being still active.

Rheumatic fever or arthritis deformans appears sporadic, epidemic or endemic; it is known all over the globe, it is prevalent on the coast, in moist, damp climate, therefore more so at certain seasons like winter months and during rains. It is more prevalent in the tropical and semi-tropical regions. In California it occurs decidedly in endemic form. It is observed during the summer season as well as during winter. It is not known in the polar regions. It appears mostly between the ages of 20 and 50 although I have seen it in much younger individuals. There does not seem to exist a predisposition, although exposure and cold seem to be blamed in most cases as aetiological factors.

The onset in acute cases seems to be sudden, although in many cases the beginning of the disease cannot be traced, owing to its insidious course. No doubt the perception of a distinct onset depends on the intensity of the attack and the amount of toxins circulating in the blood. With the onset there are chills, fever, prostration, general malaise, aching all over the body and distinct arthritic symptoms. Some cases begin with intense headaches, some with gastric attack, some with special joint affections, or with pelvic involvement. The fever is seldom higher than 102 or 103, but the pulse is markedly accelerated, the tongue is coated. The fever in the beginning may be of continuous type; later on it is slight, intermittent and irregular. It may subside for days or months only to appear after a time, and in this fashion may continue for years. There is one symptom, however, which is nearly constant during the entire disease, that is, the acceleration of the pulse.

As *subjective symptoms*, in the course of the disease, I wish to mention foremost pain, tired feeling, weakness, loss of ambition, lack of sleep and nervousness. Clinically, we may divide the

course of arthritis in the following stages:—acute, sub-acute, chronic and the stage of deformity. As I mentioned before, the disease affects bony and fibrous tissues and manifests very interesting features as regards predilection or seat of pain. To make the picture clearer, I shall proceed in anatomical order.

The *cranial* involvement is a very severe type of polyarthritis. There is generally pain, tenderness of the top of the head, over the back of the head extending down to the neck, over the temporo-parietal and temporo-occipital, suture, the mastoid region and the aponeurosis and muscular attachment of the occiput. In literature there is hardly any attention given to this form and etiology of headache and the term *rheumatic headache* is fully justified in this connection. It is a more frequent condition in polyarthritis, persisting for many years and hardly amenable to any cure. As I mentioned above the pain has its peculiar location; it is more of a continuous type, it is steady, it runs a rheumatic course, i. e., it is more aggravated towards evening, during the night, in cool weather and before and during rains and in the early morning. From other forms of headache it is easily differentiated by being accompanied always by rheumatic pains in *other* parts of the body especially near the head, from neuralgia by its irregular spread and tenderness over synostoses only from toxæmia by its duration and peculiar localization.

On the face the temporo-mandibular articulation is most often affected, which is quite characteristic of this disease; it may lead to ankylosis of the joint.

In the neck the cornu of the hyoid bone is mostly affected on one or both sides and gives rise to tenderness, pain and difficulty in swallowing. In connection with pain and stiffness in the neck let us describe rheumatic affections of

the vertebra. Subjectively there is found more or less pain, stiffness, rigidity of the spine, mostly in cervical and thoracical region. Complication of the vertebra seems to be the constant symptom in arthritis and some authors describe it as a disease "*sui generis*" under various names as spinal arthritis, osteo-spinal arthritis, terms which, according to the nature of the disease, are not justified. The tenderness is found irregularly in the spine over the transverse processes, probably due to the affection of the costo-vertebral joint or tendons attached thereto. On the thorax we find the sternoclaviclar and the sternocostal joints irregularly affected; some joints even appear swollen, most of them are decidedly tender or painful on touch and pressure, thus often simulating some cardiac, pleuritic, or gastric affection. The pain often extends quite a distance over the ribs and there is a distinct pain felt during deep inspiration.

The abdomen participates with its pelvis, the bony attachments and tendons in the general picture of polyarthritis and arthritis deformans. The most favorable points of pain and tenderness are the symphysis pubis, especially the attachment of pouparts ligament to the os pubis and os ileum, the crest of the ileum and sacro-iliac synchondrosis. If the pain is predominant in this region, it may simulate some involvement of the organs of the pelvis.

The most aggravated type of arthritis is that with swelling deformities and ankylosis of the small and large joints in the extremities. In the shoulder we find the distal end of the clavicle and the spine of the scapula, painful; the shoulder and elbow joints are not so frequently attacked; the wrist shows in its many joints quite regularly various signs of the disease, in form of pain, swelling and even ankylosis. More frequently attacked are the metacarpophalangeal and the phalangeal joints.



All phases occur from slight tenderness to complete ankylosis and deformity. Among the joints of the feet the articulation of the scaphoid bone and the tarso-phalangeal joints are the most frequently affected. The intense pain caused in these little joints, often totally disables patients, making them bedridden. This condition should be differentiated from "flatfoot."

In reviewing the clinical course and picture of arthritis deformans and "rheumatic fever" great interest centers upon the question: Is diffuse polyarthritis with fever, rapid pulse, but without deformities, a disease sui generis, or only symptomatic of a hidden infective focus; is it further identical with arthritis deformans, being its early stage or only a mild form of arthritis deformans? Clinical evidence seems to show that polyarthritis rheumatica is a cryptogenetic disease. Its identity with arthritis deformans has not been proven. I have never observed a transition of polyarthritis rheumatica into arthritis deformans and as a remarkable illustration of these statements I wish to cite the case of a young woman of 20 whom I saw in September, 1905, and who had then been suffering for one year, i. e., since 1904, from diffuse polyarthritis. I have seen her since, off and on, and her condition remained the same in 1911. Her condition persists now, she having had hardly any intervals of rest, for 7 years; she looks healthy, but still complains of rheumatic pains over all the respective tissues with occasional slight rise of temperature and acceleration of pulse.

The question of aetiology is still more complicated by the advent of auto-intoxication as an important factor in the causation of polyarthritic pains.

H. W. Marshall<sup>5</sup> gave a very valuable contribution to this subject.

Without going into details, I may simply add that in this type of rheu-

matic pain there is rarely any fever, accelerated pulse or deformities of joints.

In diagnosing conditions one has to take a careful history of the case, especially as to former attacks and even to former septic conditions. In examining the patient, pulse and temperature should be noted; if both are normal a source of auto-intoxication may be looked for; if the temperature is normal, but the pulse is accelerated a mild form of sepsis is to be suspected and the investigation regarding temperature should be extended for one to two days, and if there is an occasional rise of only 1° or 1.5°, a septic condition is thus marked. The intensity of pain in other parts of the body is able to hide a slight or insignificant infective focus. Teeth and tonsils should be carefully inspected, also nasal cavities; the abdominal cavity harbors often, septic foci in the form of chronic and circumscribed inflammation of various organs.

Acute inflammatory rheumatism is easily recognized and excluded; a symptomatic arthritis explains itself—there remains to consider arthritis deformans and "rheumatic fever." An acute attack or repeated attacks of pain in various joints with a mild sepsis, but no marked changes speaks for "rheumatic fever." The same type of rheumatic fever with decided changes in the joints speaks for arthritis deformans.

There is no difficulty in differentiating those conditions from hysteria, myositis, neurasthenia and neuritis; the only difficulty consists in finding the cause and applying the proper treatment.

I wish to add that as probable causes of septic rheumatic conditions one should not overlook gonorrhoeic, syphilitic or tubercular infection. Many cases of diffuse aching in various joints are denounced as being of hysterical nature; in this instance I may say that there is no doubt a possibility that a hysterical patient may acquire rheumatic fever

just the same, and it would be erroneous to attribute those arthritic symptoms to hysteria; or an individual with a neurotic disposition acquiring rheumatic fever or arthritis deformans may become neurasthenic or even hysterical in consequence of the continuous pain, malnutrition and lack of sleep.

#### BACTERIOLOGICAL FINDINGS IN URINE.

For the purpose of tracing an eventual hidden focus of infection, I examined the urine of 14 patients from a bacteriological standpoint. This part of investigation has been conducted by Dr. D. C. Ragland.

As culture media we used 3% Glycerin-Agar in steril flasks.

Among those 14 cases, 13 showed distinct growth of bacteria; 3 cases only were of the arthritis deformans type, whereas the other 10 cases comprised acute and chronic polyarthritis without deformities. In all 13 cases we found one type of bacteria 12 times either alone or in company with other bacteria. This bacteria apparently belonging to the staphylococcus group—shows the following characteristic features:

The flask is put into the incubator with the urine on top of the culture-media; after 3 to 4 hours one has to pour out the urine and replace the flask. After 24 hours the surface of the culture-media was studded with small colonies, discrete, white, not deep; smears from it showed small spherical organisms, which appeared in some places in small chains in other places in bunches; accordingly we named it Strepto-Staphylococcus. It is gram positive and not acid fast. For abbreviation's sake, I will call this organism, Micrococcus Rheumaticus, and among 3 cases of arthritis deformans this was present in two cases alone, in the third case with Staphylococcus albus. Among the 12 cases, in which this coccus was found constantly, it appeared 6 times in pure culture, and in the other 6 cases accom-

panied by Staphylococcus Citreus, by Staphylococcus aureus (twice), by Staphylococcus albus, by bacillus urea and by bacillus coli. The 13th case showed only Staphylococcus albus and aureus due to a chronic empyema of the antrum and some chronic inflammatory conditions in the abdomen; smears taken from the antrum showed on culture-media the same two kind of bacteria.

In this small statistic two points are of interest—the constant presence of the so-called micrococcus rheumaticus and the frequent appearance—50%—of the staphylococcus group.

#### VACCINE TREATMENT.

1. Miss B. L., 12.—Case of polyarthritis rheumatica. I have seen this patient in June, 1910, after 6 weeks of illness. She contracted her first attack 6 years ago and had since a few attacks of several weeks' duration. On repeated examination I found her temperature always around 99° and 100°, her pulse rate increased; she was suffering from diffuse polyarthritis with swellings in various joints, stiffness and rigidity in cervical spine.

June 13, 1910. I injected 7 mm. Streptococcic stock Vaccine (16 mm.—50 mill.) Reactive symptoms lasted 3 days, after that she improved. June 20. She received 8 mm. of the same vaccine; subjectively she was benefited; subsequently her pulse and temperature record was:

Date.	Temperature.	Pulse.
June 25, 1910	99.5°	120
June 29, 1910	99.4°	90
July 7, 1910	99°	120
July 8, 1910	Normal	84
July 26, 1910	“	78

July 27 she received 10 mm. of same vaccine and subsequently all rheumatic symptoms disappeared.

Case No. 2. D. J. Dietz, 51, carpenter, was suffering since 10 years with intervals from chronic arthritis deformans.

In September and October, 1910, he was confined to bed, his temperature ranged irregularly between 98° and 100°, his pulse rate from 64 to 130.

November 22, 1910, he received autogenous vaccine (250) mill. made from culture of *micrococcus rheumaticus*. After the reactive symptoms subsided, he improved.

November 29, 1910, he received 500 mill.  
 December 6, 1910, " " 750 "  
 December 13, 1910, " " 750 "  
 December 27, 1910, " " 1250 "

His condition improved satisfactorily. Pulse and temperature became normal; he could walk and work without difficulty.

Case No. 3. Mrs. O. K., 26, md., suffering from arthritis deformans for 2 years with permanent swellings in fingers and toes and the usual other symptoms of this ailment.

July 23, 1910, temperature 99.2°, pulse 96, vacc. treatment 2 mm. *Streptococcie*.

July 26, 1910, temperature 98.8°, pulse 108, vacc. treatment Vaccine 1 cc.=.50 mill.

July 30, 1910, temperature normal, pulse 96.

Up to November 15th she has been treated with *Streptococcie* Vaccine and since with autogenous one in increasing doses up to date. The result of this treatment was general improvement; there were no new attacks, no exacerbations of her condition; redness over affected joints disappeared, temperature mostly normal, pulse rate occasionally increased. Pains were markedly diminished; the joints were used without any trouble, but the swelling in three finger joints remained stationary.

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#### DISCUSSION.

Dr. Raglan:—I have not much to say in regard to the disease. Dr. Herbert was not kind enough to let me see any of these patients but only sent me the flasks of urine and from that urine was cultivated the peculiar staphylococcus mentioned. Any one doing much bacteriological work knows that there are many kinds of staphylococci. Dr. Welch, I believe, cultivated a type of staphylococcus from somewhere in the abdomen that would not grow in air; something very unusual, certainly. This staphylococcus was cultivated in agar-agar or serum media. It shows a much more delicate growth than the ordinary white staphylococcus with which it is always confounded. The colonies are quite dew-like at the end of twenty-four hours. Other than that I can say nothing, for I have made no experiments upon animals in an attempt to produce the various symptoms and signs, but have only prepared these vaccines for the doctor, who used them with the results just given you.

Dr. Donald Frick:—I have been interested in this subject for a few years and have done something in the county hospital and in private work along these lines. I was greatly interested in the essayist's paper but I must say I do not exactly understand the divisions of arthritis as he has given them. I think it is a very hard thing to make a clear classification of arthritis. In the literature on the subject the clearest classification is that of Dr. Nathan, of New York, in an article in the *American Journal of Medical Sciences*. He divides all cases, first, into two general classes: arthritis and osteo-arthritis; and then he subdivides them, the arthritis into septic, metabolic or toxemic forms, and the osteo-arthritic forms into septic, toxemic or metabolic forms, and those that accompany nervous diseases, syringomyelia or tabes, and then the senile type. With that classification you can cover nearly



all forms of arthritis or osteo-arthritis. With this classification your judgment of treatment is better and your idea of prognosis. If you have an osteo-arthritis your prognosis is much worse than with an arthritis. In regard to the infective forms, as Dr. Herbert has spoken of cases with localized foci from which the toxins probably came, I have seen a few cases that ran such a course as he has described. One patient was the wife of a physician, sent me by Dr. Ebricht, of San Francisco. She suffered from pain in the neck and shoulder for some years. Dr. Ebricht had gone over her very carefully and found in the upper jaw an ulcerated tooth, and learned that the ulceration covered a period of about the same duration as the arthritis. The tooth was treated and the infection removed and she was very much better when I saw her and under massage the condition cleared up entirely. Another case of especial interest was that of a man living on the desert. He came into town occasionally, and every time he came he had his teeth fixed, i. e., about every six months. He had pyorrhoea very badly and at about every trip he had to have a tooth removed and had done this for five or six years. For a month or six weeks after these trips to town he would be relieved of the pain and then the pain would return again. The first was clearly an infective arthritis and the second case was an infective osteo-arthritis, for in that case there were also the bone changes. I believe all cases that continue long enough will develop into osteo-arthritis. On the other hand a case may commence as an osteo-arthritis, i. e., it may commence in the bone and work outward. As to the toxic, or metabolic types, that is a rather loose way of describing it, for we do not fully understand it, but we suppose it is an absorption of toxins from the intestinal tract or from some diseased organ in the body. The question of arthritis deform-

ans has been very badly mixed up and this has really done an enormous amount of harm. In looking up the descriptions of arthritis in Osler's book there are four or five things described, under arthritis deformans he gives the tentative form of hyperemias with osteo-nodes and with no ankylosis, and then he describes a condition in which you get the beginning changes in the bone but without ankylosis, with crepitus and freely movable joints, and then he describes Still's disease, an infective disease, and then a spondylitis. So I think if we can get down to a classification we can use for all cases we will be very much ahead.

Dr. Hagadorn:—From what does the doctor get this micrococcus?

Dr. Herbert:—From the urine.

Dr. Herbert (in closing):—I did not cover the entire subject of rheumatism, for that would have taken me hours and hours. I merely wanted to differentiate between the two forms, rheumatic fever and arthritis deformans. Dr. McCrea, I think, of Philadelphia, wrote a very valuable contribution on this subject several years ago and he describes a condition that he thinks is probably a forerunner of arthritis deformans. Very few have been fortunate enough to see the onset of such a condition, so that it can be said, that in that individual we noticed the onset several years ago and followed it up. Here in California we see many cases of rheumatic fever; I have never seen it anywhere else so often, but no one would call this condition arthritis deformans. Many recover in a few days, many do not recover at all but carry that type of fever indefinitely. Dr. Frick mentioned Still's disease. I have seen a typical case of Still's disease in an adult one. This young woman was well until a year ago. There was a history of some throat trouble, possibly a tonsillar abscess. She was operated upon and a large amount of pus removed. From that time on she was

sick and a marked symptom was fever. I used the vaccine and in a few days all the glands in the body were swollen, the spleen was swollen and there was intense palpitation and stenocardia. That condition lasted for weeks and weeks. Grad-

ually the swelling of the glands disappeared. This is the only case I have seen among grown people and that was probably the result of the use of the vaccine, the toxins being absorbed by the glands, thus causing the swelling.

Grosse Building.

## THE CLIMATE OF NORTHERN ARIZONA.

BY JOHN W. FLINN, M.D., PRESCOTT, ARIZONA.

Perhaps the climate of no other portion of North America has been so little understood or so grossly misrepresented as has that of Northern Arizona. Even those who live on the very borders of the Territory are apparently obsessed with the idea that all Arizona is a hot, treeless desert, unfit for the habitation of man except during the winter months. When a resident of Northern Arizona happens in Los Angeles in any of the summer months his friends there will greet him with "Hello, you came in to get cooled off, eh?" forgetting that the mountains and plateaus of Northern Arizona have a much cooler summer climate than any part of Southern California. They, even, are not aware that Arizona has a diversity of climate equaled in but few states of the union.

To appreciate the marked differences in the climatic conditions in different parts of Arizona it is necessary to know something of the topography of the Territory. "The surface of Arizona is a succession of plains, mountains and plateaus extending step-like from sea level in the southwest to elevations several (five to seven) thousand feet towards the north and east, attaining an extreme elevation in the San Francisco Peak (near Flagstaff) that stands 13,000 feet above sea level." In this wide diversity of elevation one finds almost every variety of temperature from perpetual summer near Needles to snow and ice every day in the year in the shaded canyons near the top of the San Francisco Peaks.

With regard to its physical features Arizona may be divided into three regions: the plateau region; the mountain region and the desert region. Northern Arizona comprises the first two—the Plateau and the Mountain region.

The Plateau region is an immense tract of country approximately as large as the whole state of Pennsylvania (45,000 square miles) lying in the northeastern part of the Territory and with an average elevation of nearly seven thousand feet. This is part of the great Colorado plateau and on its southern boundary "drops away abruptly in a long line of steep cliffs," which in the central portion are known as the Mogollon rim. The Santa Fe railway crosses the rim of the plateau a little east of Ash Fork and continues on the plateau until it reaches the New Mexico border. On this plateau is the Grand Canyon situated in a belt of 60,000 square miles of western yellow pine, a part of the largest unbroken pine forest reserve in the known world.

The Mountain region lies immediately southwest of the rim of the higher plateau region, its average elevation being nearly two thousand feet less than that of the plateau. It is a continuation of the Basin region of Nevada and runs diagonally across the Territory to join the Sierra Madre mountains in the south. It is a "broad belt of short, nearly parallel ranges" (none over fifty miles long), seventy to one hundred and fifty miles wide, some of which rise to a height of eight thousand feet. This

mountain region covers an area of approximately 37,500 square miles (fully as great as that of the State of Indiana) and is probably more thickly wooded than any other portion of the Territory, having a fairly thick covering of scrub oak and manzanita on the lower levels and of juniper and pine on the sides of the higher hills.

Northern Arizona, comprising these two regions (the plateau and the mountain) is a huge stretch of territory one and one-third times as large as the whole of Southern California with an average elevation varying from five thousand to seven thousand feet, portions of which are quite thickly covered with pine and other timber.

The climate of Northern Arizona is that of the temperate zone. The summers are delightfully cool in all parts, while the winters vary from mild in the mountain region to quite cold in the higher parts of the plateau. The annual rainfall varies from about fifteen inches in the mountains to more than twenty-two inches on the higher plateau. The greatest precipitation is in the months of July and August. On the plateau there are heavy falls of snow in December and January. The whole district lies without the path of storm movement and pronounced changes in the weather conditions from day to day are very infrequent. The daily variation of temperature, however, is very great, "due to the very dry condition of the air, which permits the sun's rays to pass freely through it and raise to a high temperature the surface of the ground and the air lying near thereto, while favoring radiation at height;" and allows the surface to cool very rapidly after sunset. There are no destructive storms, and tornadoes are unknown.

The principal towns of Northern Arizona are Prescott in the mountain region, and Flagstaff on the higher plateau. A detailed description of the climate of these two places, will give a very cor-

rect idea of the general climatic conditions of the two regions of this district.

Flagstaff, population 1650, altitude 6907 feet, is situated near the middle of the plateau region and on the very edge of the pine-covered Coconino forest reserve. The summers are delightfully cool while the winters are cold but bright and sunny. The maximum summer temperature is about 91° to 92°, and the mean temperature for the months of July and August is 65° and 62.8° respectively. The mean temperature for the coldest months, December and January, is 28.4° and 26.7° respectively, while the maximum temperature for these months is about 60°. At times the thermometer goes as low as 20° below zero. The average annual precipitation is 22.28 inches, of which the greatest proportion falls in July and August in heavy summer showers, and in January and February in quite heavy falls of snow. The percentage of sunshine is high. In 1909 there were 186 clear days, 92 partly cloudy and 87 cloudy. In 1910 there were 184 clear days, 96 partly cloudy and 85 cloudy.

Prescott, population 5000, altitude 5346 feet, is situated in quite a thickly wooded pine belt near the middle of the mountain region of Northern Arizona. The temperature is pleasant at all seasons of the year. The hottest months, July and August, are thoroughly enjoyable, while the winter days are mild, bright and sunny. The summer nights are deliciously cool and a blanket is always needed. The maximum summer temperature is about 95° to 98° F., and the mean temperature for the months of July and August is 71.6° and 71.2° respectively. The mean temperature for the coldest months, December and January, is 37.7° and 35.1° respectively, while the maximum temperature for these months is about 70°. Frequently the thermometer drops nearly to zero for a day or two about the end of December. The average annual rainfall at Pres-



cott is 17.12 inches, falling chiefly in short, sharp showers in the summer season. In the winter there is occasionally a slight falling of snow which under the influence of the bright sunshine soon disappears. The percentage of sunshine in Prescott is very high. In 1909 there were 241 clear days, 74 partly cloudy and 50 cloudy. In 1910 there were 265 clear days, 55 partly cloudy and 45 cloudy.

One may get a clearer conception of the mountain climate of Northern Arizona by comparing the climate of Prescott with that of other well-known mountain resorts. Vaughn says, "The climate of Prescott challenges comparison with that of Denver and that of Colorado Springs. Thirty feet higher than Denver and 750 feet lower than Colorado Springs, it has an annual mean temperature of 53° or some 3° higher than both. The summer temperatures are very nearly alike but Prescott enjoys a less severe winter; its average wind velocity is considerably lower, and its relative humidity is less than half of that of either of the other two places. Its percentage of possible sunshine is also higher. In 1903 Denver had a total of 199 clear days, 105 partly cloudy and 61 cloudy; whereas Prescott had 248 clear days, 96 partly cloudy and 21

cloudy." In 1909 Denver had 149 clear days and 153 partly cloudy; Colorado Springs had 200 clear and 109 partly cloudy, while Prescott had 241 clear days and 74 partly cloudy.

In all Northern Arizona the relative humidity is very low at all seasons of the year, at times remaining at even 12% for a number of days in succession. Both the heat and the cold are tempered by this very low relative humidity. A temperature of 90° F. with a relative humidity of say 25% is much less noticeable than say 70° F. where the relative humidity is very high. The air throughout all this district is more bracing and tonic than at lower altitudes; and in the pine belts sandstorms are unknown.

In a word, Northern Arizona is a distinctly separate entity climatically, differing radically from the lower or desert region of the Territory. Here one finds especially, a desirable all-the-year-round climate, everywhere cool in summer, and varying from mild to cold in the winter, according to the elevation.

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## HISTORY OF MEDICINE—PERIOD OF GALEN.\*

BY C. H. WHITMAN, M.D., LOS ANGELES, CALIFORNIA, SUPERINTENDENT LOS ANGELES COUNTY HOSPITAL.

In the year 131 A. D., there was born a man whose name for centuries represented all authority in medicine, and whose works were studied and discussed by innumerable commentators. The end and object of medical polemics throughout the middle ages, with rare exceptions, was to determine Galen's exact meaning in obscure passages. He was the law-giver in the

medical world, as was Aristotle in the philosophical. From his dicta there was no appeal. Galen began the study of medicine in Pergamos, his native city, later continuing his studies at Smyrna, then at Corinth and finally, at Alexandria, where he devoted most of his time to anatomy, and had, he tells us, the good fortune to see a human skeleton. At the age of 34

\*Read before the Los Angeles County Medical Association, June 2, 1911.

he went to Rome, where he acquired a reputation as a practitioner and lecturer in physiology. His lack of moderation in proclaiming his own merits and in decrying the ignorance of his medical brothers, won their enmity, and such were the jealousies of which he became the object, that, after two years, he abandoned his practice in the capitol and returned, thoroughly disgusted, to Pergamus.

A year later, upon the invitation of Emperor Marcus Aurelius, he returned to Rome. Of his subsequent life there are conflicting statements. His age at death is variously stated as from 70 to 80 years, probably 71 years. His fertility as an author is hard to understand. He was a man of marvelous industry and enormous technical knowledge. As a practitioner he fell far short of Hippocrates, but as an investigator and writer he accomplished much. He was the first physiological experimenter. He produced paralysis of certain muscles by section of the nerves supplying them, and observed loss of voice after dividing the recurrent laryngeal. He recognized seven of the cerebral nerves, which he believed to be nerves of sensation, while the spinal nerves, were, according to him, the nerves of motion. He arrived at some broad conception of the sensorium commune, and of its functions in respect of useful and harmful conditions; he showed that meninges are insensible, that much of the brain may be ablated without paralysis until the central ganglia are reached, and yet that to invade the region of the fourth ventricle is perilous to life. As an anatomist he was even more of an originator, although his studies were conducted upon animals. He was a careful describer of the bones, of the central and peripheral nervous systems, the larynx, the intestines, the genital organs and the eye. He discovered Wharton's duct 1450 years before Wharton was born.

He described the three coats of the arteries and the longitudinal, transverse and oblique fibres of the heart. He did little for surgery and in the practice of medicine chiefly followed Hippocrates.

In his work he did not limit himself to medicine, but seems to have been as encyclopedic in his writings as in his knowledge. To give a just appreciation of Galen in a paper of this kind is impossible, indeed, an appreciation just and full has yet to be written; but from a few selected particulars some notice of his work may be gathered, and some illustration of the growth of medicine at the crucial time of the second century.

He wrote of philosophical, grammatical, mathematical and legal works ..... 125  
Of independent medical works (genuine) ..... 83  
Doubtful ..... 19  
Lost ..... 48  
Of commentaries of Hippocrates.... 15  
Of fragments ..... 19  
Of works, which to this day have never been translated or printed.. 80

Making a total of..... 389  
There are 45 other works, generally designated as spurious.

Among many clinical observations I will cite only his discrimination of paralysis agitans from other tremors, and of cerebral from gastric vertigo. Rigors for him meant pus; and the expectoration of false membranes, a dangerous inflammation of the air passages. As a physician, Galen was a disciple of Hippocrates. He relied upon the tendency of the body to recover, and made careful use of exercises and dietetics.

In pathological anatomy he did but little, yet of diagnosis he discerned the three aspects, viz:—The part affected, the causes, and the various grouping of symptoms. He held that there could be

no disorder of function without a lesion of the part, far as the part might be from the morbid effect. He goes so far, in fact, as to suggest that for cure it is important to know the nature of the local lesion.

As to physiology, he indulged himself in philosophical "pipe dreams" and extravagant speculation; thus he elaborated the functions of the *pneuma*, and the doctrine of the four elements and four humours, and of the diathesis, into a network in which medicine was entangled for some fourteen centuries; and carried final causes into every part and aspect and physiology—an ingenuity which made his doctrines especially available for the Church.

Of interest to surgeons is the fact that Galen knew and practiced the ligation of arteries. Though it does not appear that he applied the principles to vessels severed in amputation. A principle, the establishment of which immortalized our sixteenth century *Paré*. In his treatise on tumors, Galen describes aneurisms, true and false, and recommends compressure for their cure. He advocated sundry operations for injury to the brain and cord and he advocated them intelligently. Others among the ancients were more or less familiar with such procedures, but much of Galen's writings has a peculiar modern sound.

He was a voluminous writer who felt his mission was to instruct the profession in every branch of medicine. Often he was visionary, often, for lack of the microscope and of a knowledge of chemistry, his assertions were mere guess work and his hypothesis untenable; but, with such light as he had, his methods and purposes were correct. If he had lived in more settled times and among a people sensible of the meaning of science as he taught it, there can be no doubt that the impetus he gave to medicine would have broadened into great schools of learning, such as the

world had to wait nearly eighteen centuries for.

For thirteen hundred years the works of Galen continued to carry with them a supreme influence, a fact in itself sufficient to warrant the assertion that he may be placed among the greatest medical characters in history. It cannot be said of him that he was the peer of his well beloved predecessor, Hippocrates, any more than it can be said that a part is as great as a whole, for while the Father of Medicine set up the framework, Galen could, after all, but fill in a part of the structure. While Hippocrates was the great originator, it was left for the skill of Galen to be the transcriber. More fortunate than Hippocrates he had a foundation to work upon.

Throughout his entire works can be observed the dogmas of Plato, Aristotle and Hippocrates, of whose philosophy he was a profound student. Throughout, he displays ingenuity and thorough application and a well grounded knowledge of the wisdom of his age.

None of his writings display a greater accuracy than his work on anatomy. Much of our own knowledge is due to his labors in this science, and when it is considered that the field of anatomical research was confined to the dissection of animals, it must be admitted that he was a most acute observer. The Romans as well as the Greeks refused to permit dissections of the human body and the scarcity of material can be surmised when Galen advised his pupils to go, if possible, to Alexandria, where two human skeletons could be seen.

Of his fifteen books on Anatomy, six are lacking. He introduced the term "*Symphysis*" and he described nearly every bone in the human body. He studied and classified the muscles according to their distinct functions; he located the vessels and nerves between the muscles. Galen was the first vivi-



sector of all since he exposed muscles of living animals. He named a great number of muscles and his classification according to their uses is followed down to the present day, i. e., flexors, extensors, etc. Galen was the first person to refute the teaching of Aristotle concerning the arteries containing air, he noted that always when an artery was wounded blood gushes out. How near he came to being the discoverer of the circulation may thus be seen.

Although Galen had no patience with many of the uncertain doctrines of the day, yet he permitted himself to wander into vague realms. It is perhaps too much to expect of one man, genius though he be, to cut himself off entirely from the teachings of his age.

But Galen builded well. He undertook a colossal work, and with mind

open and ready for conviction, he labored long and energetically at his task. We know him best for his efforts to present the accumulated knowledge of his age for the benefit of posterity. Shorn of the dogmas of the age, his works stand out as a lasting example of what one master mind may accomplish within the span of human life.

In Galen, Greek medicine found at once its culmination and its eclipse. This extraordinary man, the founder of physiology by the true experimental method, a prodigy of learning, a copious and ingenious philosopher, stood eminent on the abyss which, in after time swallowed up medicine and all natural science for many hundreds of years, until in the University of North Italy the medicine of the west was born again under the spell of VESALIUS and Harvey.

## "THE TREATMENT OF ACUTE PELVIC INFLAMMATION."

BY WALTER D. BOGGS, A.B., M.D., PASADENA, CALIFORNIA.

*Acute Pelvic Inflammation* always begins as a diffuse inflammation and consequently gives rise to a "Symptom Complex."

The infecting organisms, excepting the Colon Bacillus and the Tubercular Bacillus, are exogenous and are invariably the Gonococcus, Streptococcus or Staphylococcus, existing separately or in combination.

The *Time of Infection* is decidedly definite and is always during one of the following periods:

1. Post-abortion.
2. Post-partum.
3. Premenstrual.
4. Post-uterine instrumentation.

The infection travels from the vagina by one of two routes:

1. "Via Fallopian Tubes"—thus producing an *Acute Salpingitis* and a localized peritonitis.

2. "Via the Cervical Lymphatics" to

the Broad Ligaments, producing "fixation of the uterus" and later a general *Pelvic Peritonitis* with an exudate.

The *Degrees of Infection* are fairly definite and can be grouped under four heads:

1. Those confined to the Uterus alone (i. e., an acute Endometritis); such a condition is rare as the infection is usually much more broad in its scope.

2. "Acute Salpingitis," most often the Gonococcus, but sometimes the Colon Bacillus or Tubercle Bacillus.

3. A "Cellulitis of the Broad Ligaments" or a Parametritis, due to the Streptococcus or the Staphylococcus via the lymphatics.

4. "Septicemia" due to the absorption of the toxins and micro-organisms which can be found circulating in the blood stream.

To reiterate, an Acute Pelvic Inflammation is most decidedly rare, except

during one of the above four mentioned "Periods of Infection" and it is most common during *Post-Abortion*, chiefly through the too prevalent use of the curette. All abortions excepting those between the seventh and twelfth week, during which period the ovum and membranes can be expelled in their entirety, must be considered *Incomplete* and *Septic*. Before the seventh week, the cervix is not sufficiently patulous to permit a digital method of evacuation of the uterus. The curette offers the only means. After the seventh week, however, the uterus *can* and *must* be evacuated by the finger or fingers together with the Keith forceps. By substituting the finger or fingers for the curette after the seventh week and thus eliminating the almost inevitable absorption by the uterine lymphatics as results from any curetting of the uterus in any acute infection the percentage of Acute Pelvic Inflammation would be greatly reduced.

The *Pathology* of an "Acute Pelvic Infection" varies directly according to the invading host and the channel of invasion.

The "Gonococcus" most always travels via the uterus to one or both fallopian tubes, where an acute inflammatory condition is at once set up, the character of the inflammation being one of three types, depending upon the virulence of the gonococcus and the resistance of the patient.

The mildest type of a gonococcus infection in the fallopian tube is a "Catarrhal Inflammation," eventuating in complete recovery, but more often in a "Suppurative Salpingitis" and a "localized pelvic peritonitis;" or the invading organism may be so virulent as to produce a violent suppurative salpingitis, eventuating in a "Pyosalpinx," due to the retention of purulent fluid in the closed fallopian tube.

The closed tube is produced in one of two ways:

1. The Fimbria become adherent to

the peritoneum through the agency of the tubal exudate, the product of the inflammatory process.

2. The Mucous Membrane of the tube becomes inflamed, swollen and exudative, the end result being an inward rolling of the membrane, causing an agglutination of the peritoneal folds.

If, on the other hand, the infecting organism be the "Streptococcus" or the "Staphylococcus," acting alone or in combination with the gonococcus, the inflammatory condition is more severe and spreading in its nature. The infection travels from the cervix to the Broad Ligament via the Lymphatic System, thereby making the ligament tense, swollen, thickened and tender and at the same time causing a displacement and fixation of the uterus, besides ultimately setting up a "peritoneal exudate" or "mass" that terminates in one of three ways:

1. Resolution.
2. Abscess.
3. Resolution after incision.

The *Utero-Sacral* ligaments are always inflamed in an acute pelvic inflammation and consequently give rise to the typical gynecological "backache."

The "*Sequelae*" of a Parametritis are pronounced and characteristic:

1. *Shortening* of the broad ligament and displacement of the uterus, the cervix migrating to the diseased side and the body to the opposite side.
2. *Fixation* and Limitation of the uterus and pelvic pain when patient is in an upright position.

The *Symptoms* of an Acute Pelvic Inflammation are:

1. Chill, followed by some rise in temperature.
2. Pain on the affected side.
3. Pelvic tenesmus.
4. Gastro-intestinal disturbance.
5. Malaise.

The *Physical Signs* are definite:

1. Extreme tenderness over the lower abdomen on the affected side.

2. Tension and rigidity of lower abdomen.

3. Via Vagina:—exquisite sensitiveness of surrounding parts and spasmodic fixation of the uterus; broad ligament is tense, tender and swollen; uterus is displaced; forty-eight hours later an indefinite mass to one side of uterus, produced by the peritoneal exudate.

*Diagnosis—*

1. History—subsequent upon Labor, Abortion. Uterine Instrumentation or Menstruation.

2. Symptoms above mentioned.

3. Characteristic physical signs per abdomen and vagina.

*Treatment—*

The most important thing is “hands off.” The expectant treatment is as follows:

1. Enema.

2. Patient to bed in Fowler’s position to secure better pelvic drainage.

3. Starvation complete for twenty-four hours so as to produce intestinal rest.

4. Codein gr.  $\frac{1}{4}$  or opium gr.  $\frac{1}{5}$  by rectal suppository for pain.

5. Ice bag over the lower abdomen for the first forty-eight hours only.

With the above treatment immediately instituted, a blood count taken every four hours will give us an index both as to the patient’s power of resistance as indicated by the “leucocytosis” and as to the amount of septic absorption as indicated by the increase of the “Poly morpho nuclear leucocytes.”

For example, a blood count taken during the active stage of the inflammation before the beginning of treatment would show Leucocytes 20,000 and poly morphs 86%.

Four hours later after treatment, in most cases, a blood count would show Leucocytes 25,000÷ and poly morphs 82%.

A further examination taken later would show a decrease in poly morphs.

About the thirty-sixth to forty-eighth hour give the patient one of the following:

1. Barley water.

2. Peptonized beef juice.

3. Butter milk.

4. Enema if indicated.

If an *Exudate* forms, time alone will aid you. This peritoneal exudate is protective in character as it walls in the inflammatory area.

If an *Abscess* forms, evacuate by an incision into the posterior vaginal wall and establish drainage via the cul-de-sac of Douglas.

After all the acute inflammatory symptoms have disappeared, the peritoneal exudate can in many cases be removed by the “Bier Method,” that is by baking the abdomen for thirty minutes every other day by means of a simply constructed electrical stove.

This simple and expectant method of treating all “Acute Pelvic Inflammations” has been carried on in the Seney Hospital and Jewish Hospital in Brooklyn, N. Y., for many months and the results have been most encouraging.

There are two methods of treatment that must not be endorsed as they place every patient’s life in jeopardy.

(a) A “*Laparotomy*” is contra-indicated in all acute pelvic inflammations.

(b) The “*Curette*” is contra-indicated in all cases of abortion after the seventh week of pregnancy.

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The Anti-Tuberculosis movement was started in Hungary in 1894, and in 1898 there were five institutions for the treatment of consumption. Today the campaign is encouraged and financed by the government, and over 200 different agencies are engaged in the fight. A permanent tuberculosis museum has been established at Budapest and a carefully conducted campaign of education is being carried on.



## MEDICAL FEE DIVISION.

BY C. P. THOMAS, M.D., LOS ANGELES, CALIFORNIA.

The act of the Council of the American Medical Association following the words of its president, Dr. John B. Murphy, on the all-important subject of division of fees between the specialist and his consultants is before us, and like Banquo's ghost will not down.

It occurs to the writer that like most subjects of importance, there are two sides to it, and in time it will probably be adjusted by this great association to the satisfaction of the entire profession and the people. Just what that adjustment will be can only be surmised; at present there is but one solution of the problem, namely: Stay in the association and be a part of the greatest organized body of medical men in America, having for it members the noblest and best of the profession, and refuse to accept or give commission or fee division in any form, or else resign that membership and join the small and less desirable body of unorganized physicians, and resort to the tricks of the trade, getting business at all hazards, and all the money out of it that the traffic will stand.

I am aware of the argument of the fee divider, that they do not charge the patient more when referred than if they came alone, and that the one referring the patient must share the responsibility, and should therefore share the fee. Also the more severe criticism that general practitioners might go on treating their surgical cases medically and permit them to go unoperated, for well-known surgically curable diseases or else themselves operate them badly. To this latter class my belief is that the number is exceedingly small, if existing at all, who would resort to such tactics, and that each community is capable of

regulating that by ignoring such practitioners. I believe that every practitioner who actually takes a case to the specialist giving his time and actually sharing the responsibility of diagnosis and operation is entitled to remuneration, and that it is the duty of the profession to so educate the lay public that he may receive that remuneration from the people direct and not at the expense of the specialist who is poorly enough paid for his special skill and experience, resulting from years of study and practice.

In this age no man is entitled to practice a specialty, nor can he do so with the usual low death rate and satisfactory results unless he has had much training, and years of study, and he will then have at best but a few short years left in which to lay up for the rainy day which comes to us all. It is incumbent upon him also to spend much money and time in following up his special line in the medical centers of the world. The would-be specialist who does none of these things, and has had no such opportunities is soon discovered and neglected alike by the people and the rest of the profession. It is the writer's opinion that the general practitioner who assumes to also practice as a specialist in any line has no legitimate right to recognition by the profession.

The mere division of legitimate fees between the specialist and consultant with the knowledge and consent of the patient, if done upon an equitable basis, agreed to by the whole profession and perfectly well known to the entire people would not be so objectionable, but such is never the case, invariably the doctor receiving the fee does so secretly and without the knowledge or the consent of the

patient; and if he is of a commercial turn of mind, instead of taking the patient to the specialist with the greatest skill, he takes him to the one who will give him the greatest percentage of the fee. This is where the layman is worsted, and is why the better element of the profession everywhere is opposed to the system.

The writer wishes to state at this time that the above conclusions are the result of actual observation covering a period of over sixteen years of practice of surgery, and wishes to state in conclusion that he believes there is no known method of fee division which is recognized by the best of the medical profession as legitimate and equitable, and wishes to add his name to the list of those who are opposed to it in both practice and principle.

Consolidated Realty Bldg.

Tuberculosis is being fought even in Northern Korea, according to a recent report from Dr. Edwin M. Kent, received by the Methodist Board of Foreign Missions. Dr. Kent, who is a medical missionary stationed at Haiju, says that since he established a dispensary at the little hospital in that city, the people of the entire community are leaving their doors open at night, for few of the houses have windows. The native attendants at the hospital are now so accustomed to the regular instructions about fresh air that they call this sort of advice "yeggy," and at a sign from the doctor will dispense volumes of it to the unsuspecting sufferer. Such has become the hospital's reputation for fresh air advice that a native living in Haiju expressed himself as only waiting for warm weather before going to the hospital, "for," said he, "the doctor will urge me to leave the door open and that is very hard in cold weather."

Associations for the prevention of tuberculosis have been formed in Cuba, Porto Rico and Trinidad. In Cuba there are over 40,000 deaths from tuberculosis every year, and the death rate from this disease is nearly three times as high as in the United States. In Porto Rico there are over 6,000 deaths every year out of 1,000,000 inhabitants. In Trinidad, the death rate from tuberculosis in Port-of-Spain, the only place where figures are available, was 4.75 per 1000 in 1909, nearly three times the rate in New York City. Conditions in the other islands of the West Indies, where no active campaign against tuberculosis has been undertaken, are even worse. The chief reason for this high mortality is found in the unsanitary, dark, and poorly ventilated houses of the natives of the islands.

#### A CEMENT THAT STICKS.

The following cement is said to stick on anything: Take of clear gum arabic two ounces, of fine starch one and one-half ounces and of white sugar half an ounce. Reduce the gum arabic to powder and dissolve it in as much water as a laundress would use to render one and one-half ounces of starch fit for use. Dissolve the starch and sugar in the gum solution. Then place the mixture in a vessel and plunge the vessel itself in boiling water and let it remain there until the starch becomes clear. The cement should be as thick as tar, and remain so. It can be kept from spoiling by dropping in a lump of gum camphor or a little oil of cloves or sassafras. This cement is said to be very strong, indeed, and will cause glazed surfaces to adhere perfectly. It is useful for repairing specimens of rocks, minerals or fossils that may have been accidentally broken.—Indianapolis Med. Jour.

# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.  
This journal endeavors to mirror the progress of the profession of California  
and Arizona.

Established in 1886 by  
WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

Associate Editors:  
DR. GEORGE H. KRESS, DR. JOHN W. FLINN, DR. ELBERT WING,  
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DR. F. M. POTTENGER and DR. WILLIAM A. EDWARDS.

Address all communications and manuscripts to  
EDITOR SOUTHERN CALIFORNIA PRACTITIONER,  
Subscription Price, per annum, \$1.00. 1414 South Hope St., Los Angeles, California.

## EDITORIAL

### THE STATE BOARD OF MEDICAL EXAMINERS.

The California State Board of Medical Examiners held their meeting in San Francisco beginning Monday, July 31st, the whole Board being present. There were several cases up for revocation of license. Some could not be acted upon on account of time limit, and for various other legal reasons. In one instance the license was revoked on account of there having been a conviction of the Federal courts. All of these cases were of alleged abortionists.

At this meeting the ten sets of questions were gone over carefully by the whole Board, and they all appear in the current number of the Southern California Practitioner.

The following were elected as officers of the Board for the next two years: President, Walter Lindley of Los Angeles; vice-president, W. L. Vanderburg of San Francisco; treasurer, Charles Clark of San Francisco; secretary, Charles L. Tisdale of Alameda.

One hundred sixty-five applicants be

gan their examination at Golden Gate Hall at 8 o'clock on Tuesday morning. Very early in the morning's work one young man was caught using a compend. The attention of several members of the Board was called to him, and they watched him for 15 or 20 minutes, until there was no question in regard to his guilt. He was then told that he must quit the examination, and according to the rule of the Board, this prevents him from ever being admitted again to examinations in California. Another applicant got discouraged and did not come back after the morning's session, so it left 163 to go through with the four days' work.

Dr. Tisdale, the secretary, makes a practical address to the applicants each Tuesday morning, when the examinations begin, and his talk on this occasion was very good. He cautioned them about any kind of cheating and told them the results that were sure to follow. One member of the Board said that this was the only part of his duties that was distasteful, he regretted



that we had to treat the whole medical profession who were applying for licenses as though they were dishonest.

This was the largest class that has ever come up for examination. There were 35 osteopaths in the class, 22 of the applicants being women. There was an unusual absence of gray hairs, most of the applicants being somewhere about thirty years of age.

We are pleased to quote from Dr. John C. King in his recent address as President of the State Medical Society, in which he referred to the State Board of Medical Examiners as follows:

"Probably no function we perform is more important than the nomination of members of the State Board of Medical Examiners. This must be done before we adjourn. It is unwise to defer consideration of men and the measures they advocate until the moment of election. While the delegates elect, every member should devote time, thought and influence to this question. The society should determine what policy it wishes the Board to be governed by, and should select men who will execute that policy intelligently, fearlessly and tactfully. The existing Board deserves kindly recognition of the excellent work it has done. It has maintained a fairly high standard, tempered by a discreet recognition of the difficulty of determining any man's ability by a mere written examination. It has endeavored to be just without being arbitrary and has, it seems to many of us, succeeded in allaying much of the popular prejudice against the Board."

Dr. Geo. F. Reinhardt in his report to the State Society in regard to the work of the State Board of Medical Examiners, had the following to say:

"Before closing this report I wish to say that in the seven years' experience that I have had on the State Board of Medical Examiners, there has never

been a Board that has worked together so harmoniously as this last one. The distrust which some members of boards have had of other members in the past has never shown itself by word or act. The constant effort of the Board has been to administer the law without fear or favor."

#### DR. GEO. L. COLE AT BAD NAUHEIM.

GRAND HOTEL KAISERHOF,

BAD NAUHEIM,

June 30, 1911.

Dear Dr. Lindley:

We took a sleeping car at 11 p.m. in Hamburg, where we landed June 17th, which brought us in here at 8:30 a.m. on the following morning. We have been so charmed with Bad Nauheim that we have had no desire to leave it and shall doubtless remain another two or three weeks.

We have known of Nauheim for many years because of its waters. The first day here gave us another impression: namely, the beauty of the place and its surroundings. And this impression has gradually and steadily grown upon us as we have wandered about the walks and drives among the parks and surrounding hills and forests for the past two weeks. We do not wonder that many come here from America and other countries year after year. Coming to take the cure is not all that brings them.

To those who have not been here for several years there is much that is new to be seen. New bath houses have been constructed, more lands acquired, walks and drives laid out in and about the neighboring hills in a manner to lend a real enchantment to the place. In 1905 the Hessian Government began the construction of two large new bathing establishments, each containing three departments, in reality six new bath houses, and these are now just being completed, although fully occupied the present season. In 1910 the bath houses were renamed and

renumbered, a fact which rather disturbs old patients upon their return, but the renumbering was done for the purpose of carrying out a well formulated plan for both the present and the future contemplated extensions. There are now about 450 baths arranged so that approximately 6000 baths can be given daily.

A Kur-tax of 20 marks is levied upon visitors who remain more than five days, in addition to the fee paid for baths and attendance. If leaving within ten days after arrival a portion of this Kur-tax will be refunded upon proper application. "Only persons who are respectably and decently clad are allowed to walk about the Kurhaus-terrace, the vicinity of the baths, the drinking wells, Inhalatorium and Park grounds. Offenders are warned that they will be immediately removed by the inspectors." However, it is but just to say that provision is amply made for the worthy poor.

As is well known, the distinguishing feature of the Nauheim baths is the variety of irritants they contain. The water, as it comes warm from the earth, is said to be richer in carbonic acid than that from any other known springs. The water is abundant in salts and contains a considerable quantity of iron.

There seems to be a quite general method of administering the baths by beginning with the milder so-called *Thermal baths* for several days, after which the so-called *Thermo-Sprudel* bath is given for a period, this to be followed by a course of *Sprudel* (bubbling) baths. The last two kinds give one the impression that he is bathing in champagne. But unlike the ordinary effect of the latter, the stimulation here takes place upon the surface of the body. The temperature of the bath and the number of minutes duration of each bath is most carefully looked after. The diet is regulated and a definite amount of exercise is prescribed. The alluring walks which are everywhere provided with comfortable

seats for resting make the matter of exercise easily controlled. Music morning, afternoon and evening by most excellent bands lends attraction to the well-worked-out scheme. There are also several varieties of drinking waters at the various springs, one of which, the Kur-brunnen, produces a water which, when diluted, resembles the water of the Kissengen Ralcoczy. Around this spring early each morning hundreds of people, cup in hand, can be seen. A band furnishes music here from 7 to 8 a.m.

The population of Nauheim is about 7000, with over 30,000 visitors annually. The number of visitors is about one-half that at Carlsbad, the only other European Spa I have visited, but for beauty there is no comparison.

Afternoons I play golf and have for companions one gentleman who is here from Smyrna for the seventh successive year, and another from New England, who has been here six years in succession with his family. I do not censure them; without the baths the place is enticing enough to draw the man of leisure and adequate means here year after year. The country adjacent is full of historic interest and the places within easy driving motoring distances are attractive in the extreme.

I must mention the names of Herr Prof. Dr. Theo. Schott and his deceased brother, August Schott, who have done so much to add to the renown of the springs. The former has shown me many kindnesses and given me much information while here.

Frankfurt-on-Main, forty minutes to the south, is a medical center. Geheimrath Prof. Rehn, who operates at the Städtische Krankenhaus every Monday, Wednesday and Friday, was this year chairman of the section of surgery in the National Medical Association. He has been particularly kind to me and a source of much information.

Thus my first, and I could hope not my last, visit to Bad Nauheim is one of the pleasures of life to be ever cherished as a pleasant recollection.

Most sincerely and cordially yours,  
GEO. L. COLE.

P.S.—We sail for home on the Olympic August 9th.

#### ENTERTAINMENT A. M. A. SUBSCRIPTION.

As we look over the roster giving the subscription of physicians to the fund for the entertainment of the visiting members of the A. M. A. and their families we have a feeling of pride for the spirit of hospitality therein evinced. Many times the Five Dollar subscription is just as creditable as the one of one hundred times that amount. The young doctor—in his elemental struggle—gave as he was able fully as liberally as the practitioner who had achieved both financial and professional success. Although the final accounting has not been made of the A. M. A. fund yet it is certain there will be quite an excess that, according to the agreement in the subscription, will go to swell the building fund of the Los Angeles County Medical Association. Not only is there an excess but the fund might have been much larger as numerous subscribers announced to the committee that they were ready to double the amounts if it were found that more was needed.

There are several errors in the "Proof Roster of Paid-up A. M. A. Fund Subscribers" sent out by Dr. Kross. One of the early checks that came in was one from Dr. John R. Haynes for \$250; another was from Dr. D. W. Edelman for \$50.

Dr. Edmond Lazard paid \$50, but was only credited with \$10; Dr. A. J. Scott, Jr., is credited for less than one-half the amount he subscribed, while checks that were received from Dr. E. Luther Trimmer, Dr. G. A. Scroggs, Dr. Herbert F. True and Dr. John Mackenzie Brown

were not credited. These amounts are all in the fund all right, but some way there were errors in the records. Naturally, we who assisted in handling the finances attribute the errors to lapses in the mentality of our stenographic force.

The amount of the paid-in subscriptions is nearly Twenty Thousand Dollars. Add to this the functions given by Drs. Barlow and Bridge, the banquets given by the local members of various sections, alumni organizations, the amounts expended by Pasadena physicians and the physicians of the beach cities together with the club and home dinner parties and other private entertaining by Los Angeles physicians and we are within the limit in saying that the physicians of Los Angeles County spent Fifty Thousand Dollars in this week of pleasure.

It is nothing to boast of. It was simply our opportunity to throw away dull care and have a \*bully good time with the finest bunch of visitors that ever crossed the mountains and the plains to reach this Happy Valley.

#### CHRISTIAN SCIENCE.

##### No. 6.

We herewith present the sixth installment of Dr. J. M. Buckley's series of papers on Christian Science as they appeared in The Christian Advocate. Dr. Buckley calls no names. He simply lets facts in regard to Christian Science tell the story.

#### "CHRISTIAN SCIENCE" CURES AND HOW THEY ARE MADE.

In the previous articles on Eddyism we have proved from Mrs. Eddy's own words that her writings and authorized sayings are contrary to Common Sense and Natural Science. Yet, as frequently recoveries occur when patients are in the hands of "Christian Science" healers, it is pertinent to show how these healings come about.

\*Apologies to T. R.



TESTIMONY AS TO WHAT IS THE MATTER WITH THE PATIENT.

To be certain as to what is done by Christian Science it is necessary to know what the patient is suffering from. Even under skilled physicians and surgeons, with the aid of the X-rays, it is not possible always to ascertain the nature of an internal disease; and patients themselves often do not know what is the matter with them. Hence testimony as to an internal disease, and as to several external diseases, is faulty.

Hysteria can simulate nearly every known complaint—paralysis, heart disease and the worst forms of fever and ague.

Hypochondria will do the same, especially if the patient is of sedentary habits and accustomed to read medical works or accounts of diseases.

Dyspepsia has various forms, and indigestion can produce symptoms resembling those of organic heart disease.

[I heard an intelligent woman testify in public that she had suffered for ten years from heart disease, irritation of the spinal cord and Bright's disease, and had been cured of them all at once.]

Some twenty-five years ago a regular physician, living within a short distance of this city, died, the cause as he believed, on the authority of several examinations, being consumption. Post mortem examination showed his lungs sound and his death to have been caused by diseases which were the result of the enormous quantities of food and stimulants he had taken to fight off his supposed malady. This was before the discovery of the germs now considered the only cause of pulmonary consumption.

Tumors are often mistaken for cancer, and cancers are of different species; some incurable by any means known to the medical profession; others curable. It is by taking advantage of these differences that quack cancer doctors thrive.

The fact is now universally acknowledged that consumption, genuine and un-

mistakable, often terminates spontaneously in recovery and frequently yields to hygienic methods. Where the patient has all the external symptoms of the disease and examination of the lungs by competent specialists gives results which agree with each other and with the external symptoms, it is highly probable that he is a consumptive. If then a change from a sedentary to an outdoor and active life is made and the patient recovers and lives for many years without a return of the symptoms, the cure may be considered demonstrated.

Even before the discovery of germs, the London Lancet and the Edinburgh Journal of Medical Science agreed that from one-third to one-half of all the incurables in the institutions of Scotland (having other disease than consumption) who died when over forty years of age have had incipient consumption and got well of it; these facts being shown by post mortem examinations.

MRS. EDDY'S WONDROUS DISCOVERY.

We will begin by showing how Mrs. Eddy thinks she "discovered" that "mind is potent over matter and that drugs have no power." She says that before she was entirely settled upon Christian Science she "attenuated common table salt until there was not a single saline property left; and yet with one drop of that in a goblet of water, and a teaspoonful administered every three hours, she has cured a patient sinking in the last stage of typhoid fever." She also describes a case of "dropsy given up by the medical faculty," and says that after giving some medicines of high attenuation, she gave unmedicated pellets for awhile, and found that the patient continued to improve. Finally she induced her "to give up her medicine for one day, and risk the effects." After trying this, she informed Mrs. Eddy that she "could get along two days without the globules; but on the third day had to take them. She went on in this way,

taking unmedicated pellets, with occasional visits from [Mrs. Eddy],” and “employing no other means was cured.” Mrs. Eddy declares that thus she “discovered that mind was potent over matter and that drugs have no power.”

If the account she gives is true she made here the common error of generalizing from a few particulars and until her death continued to test facts by theory instead of making facts the test.

It is not to be inferred from the above that homœopathic remedies (which have been modified by the discoveries made and the experience attained since the time of Hahnemann) are generally powerless. One man, in Chicago, who thought that they were, laid a wager that he could without injury to himself swallow a whole bottle of the little pellets. He found a person to risk his money upon the proposition, and then he took at random a bottle of homœopathic pills, and in a short time fell dead.

THE FOLLOWING ELEMENTS DO MUCH  
TOWARD A CURE.

The influence of *imagination*; the power of *encouragement*; and, above all, the *vis medicatrix naturae*, the strength of the medicine of nature, WHICH IS THE FINAL ELEMENT IN EVERY CURE, had been recognized by the leaders of the medical profession long before Mrs. Eddy appeared upon the horizon. About seventy years ago Sir John Forbes, of England, said that in cases treated by certain improper methods, “the disease is cured by nature,” and not by the persons who give the treatment; and “that, in a less but still not a small proportion, the disease is cured by nature in spite of them” (that is, “their interference retarding instead of assisting the cure”).

The great Sydenham, the “most illustrious of English physicians,” also styled the “English Celsus” and the “English Hippocrates,” who lived between 1624 and 1689, said: “*I often think more could be left to Nature than we are in the*

*habit of leaving to her*; to imagine that she *always* wants the help of art is an error, and an *unlearned* error too.”

Dr. Paris, of England, said many years ago: “The file of every apothecary would furnish a volume of instances where the ingredients of the prescription were fighting together in the dark.”

Further, those who are treated by Christian Scientists in many cases derive benefit from the freedom of diet, air and exercise allowed. They are told to “pay no attention to symptoms,” “think nothing about their disease, nor talk about it,” and in a large majority of chronic diseases, not organic, this is all that is needed to produce a return to health.

The personal influence of Anti-Medicine Faith Healers, Mental Healers, Spiritist Healers and Christian Scientists involves *imagination* and *encouragement*. This is incalculable but obvious. In many instances patients may be talked down to health or be talked speedily to the grave.

Confidence in the treatment of the physician or healer is mighty also, as much so as in business, courtship and all forms of human influence. The effect of the treatment being pleasant on the whole, the patient rather longs than otherwise for the next day to come, and for the next; the invalid discovers that he does not die, that he sleeps a little better; he is not aroused to take medicine, has no fear that he will take cold, his friends assure him that he is better and he tells them he feels so.

One thing stirs the patient up: *it is the sublime audacity* displayed by the practitioner who dares to dispense with drugs, manipulation, hygiene, prayer and religious ceremony.

SUBTLE SOPHISTRY EXPOSED.

To find a place to put her special machinery for influencing people, Mrs. Eddy invented an apparent distinction between faith and “understanding;” but that is

a mere playing fast and loose with words, a trick at which she was an adept.

In the pamphlet "Historical Sketch of Metaphysical Healing" (1885), Mrs. Eddy says of "Faith Cure:"

[pp. 13, 14.] It is asked, "Why are some 'faith cures' more immediate than some of the cures wrought by Christian Science?" Because faith is belief instead of understanding; and it requires less of man to believe than to understand spiritual truth. It demands less cross-bearing, self-renunciation, and divine science to admit the claims of the personal senses, and appeal for relief to a personal God, than to deny those claims and learn the way, "drinking His cup," being baptized with His baptism—gaining the way through *persecution* and *purity*.

She brazenly asserted this when she had declared that a profane or atheistic invalid can be cured by Christian Science!

Here is the proof:

[p. 139.]<sup>1</sup> Atheism, pantheism, theosophy and agnosticism are opposed to Christian Science, as they are to ordinary religion; but it *does not follow that the profane or atheistic invalid cannot be healed by Christian Science.*

The reader will perceive that Anti-Medicine Faith Healers have "cures," and that they are frequently made in *less time* than that required by Eddyite practitioners.

As to "understanding" we assert that when Science Healers are brought into courts to defend themselves or as witnesses (in cases of deaths of persons whom the healer audibly or silently was trying to make "*see that there is no disease*"), they are generally the most stupid and mixed or irrelevant in their testimony of all classes of witnesses above imbecility. We have read the verbatim reports of the testimony of a large number of them in the best American and English papers, and speak advisedly. Copies of some of these we have from the legal authorities, and certain of them we have published in this paper.

Anti-Medicine Faith Healers have *faith* in Christ; but also in the *person* who teaches them and they "*understand*" the *theory* of the Anti-Medicine Faith Healing.

They can rattle off its jargon as rapidly as the Christian Scientists can theirs. Dowie's victims had faith in God, but most of them had a more tangible faith—so to say—in *Dowie*.

Mrs. Eddy talks about spiritual *understanding*, as distinguished from *faith*, but her devotees believed in her to an extent hardly paralleled. Many of her disciples would believe what she said if it were the exact opposite of what she had said before, and would not condemn her if she did evil—rather would they declare that there was something wrong in their own perception. Many of them believed her without understanding her or her teachings.

The further explanation of the cures under Christian Science healers lies within and beneath the following facts.

Mother Nature sometimes without being interfered with has a better chance than when medicated. A considerable number of human beings go through the world and live longer than the average, hating doctors and medicine, and having no medical treatment. Others trying the same method are unsuccessful. But all the Mind Healers, Christian Scientists and other innovators of the type fail frequently and completely in *certain diseases which can be cured under medical or surgical treatment*, and which without it are sure to prove fatal. Such is the case with some powerful poisons; left to themselves, they kill; if an antidote is given speedily, they become comparatively or wholly harmless.

#### SELF-LIMITED DISEASES.

These need only rest, warmth, fasting or proper food, and in most cases the patient lives and recovers. Those who are ignorant of this would give credit to anything or to the last thing which had

<sup>1</sup> Science and Health, with Key to the Scriptures, Boston, 1911.



been administered in the course of the disease. Every such case, under Mind Cure, Anti-Medicine Faith Healing, Christian Science, Animal Magnetism and a hundred different schemes of the ignorant, superstitious, half-educated, well-educated with a twist in the brain, and villians who impose upon dupes, is used as a triumph of the system. We give a *partial* list of self-limited diseases:

Typhoid fever, measles, German measles, chickenpox, scarlet fever, smallpox, lobar pneumonia, broncho-pneumonia. Often erysipelas is self-limited. These are by no means all. The introduction of many poisons into the system through the bowels and the stomach is of the same nature. The condition is self-limited, in that nature throws off the poison, and then the patient gets well.

Some self-limited diseases run a definite course in a given time with almost

clock-like regularity. All humbug remedies get the benefit of this self-limitation, and all "healers" that know nothing of self-limited diseases can honestly think they have made a cure. Unconscientious "healers" know it, but keep it as a secret and take their pay and praise.

If under those circumstances some one asks what is the use of a physician in such diseases, the answer is: These are some of the uses: first, to discern the character of the disease; second, to detect signs of any other malady; third, to select the food; fourth, to master the subject's temperature; fifth, to keep up his courage; sixth, to prevent him from exposing himself to cold, resuming his work, and eating too much or too little, and to give him instructions during the period of convalescence; and, seventh, to watch for, and properly treat, the latent consequences of the attack.

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## EDITORIAL NOTES

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Dr. Sydney V. West has located in San Diego.

Dr. and Mrs. W. Jarvis Barlow are at Lake Tahoe.

Dr. Wm. Fawcett Smith has been appointed Health Officer of Calexico.

Dr. Wm. Barnhart of Los Angeles has his offices in the Lissner building.

Dr. and Mrs. W. W. Hitchcock of Los Angeles have been spending the summer in Honolulu.

Dr. W. Northrup of San Diego recently had his arm broken in an automobile accident.

Dr. John W. Trueworthy of Los Angeles, who has been seriously ill, is now convalescing.

Dr. and Mrs. Ross Moore of Los Angeles have been taking their vacation in the Yosemite Valley.

Dr. W. I. Simpson of Phoenix, is spending his vacation in Los Angeles and at the near-by beaches.

Dr. Geo. E. Malsbary, formerly of Cincinnati, has located in Los Angeles with offices in suite 500, Auditorium.

Dr. Edwin O. Palmer of Hollywood, who has been suffering severely from blood poisoning, is now practically well.

Dr. E. Payne Palmer, formerly of Phoenix, has located in Los Angeles, with offices in suite 321, Consolidated Building.

Dr. Charles G. Wharton, interne of the California Hospital, is taking his vacation with Troop D in the mountains. Dr. Wharton is acting surgeon of this company of cavalry.

Dr. Ralph Avery of Oxnard had his right arm broken a short time ago when attempting to crank his Pope-Hartford.

Dr. David A. Conrad, health officer of Santa Barbara, has been spending a week in New York City studying municipal sanitation.

The annual report of the Los Angeles College Settlement shows that the five visiting nurses cared for 3402 patients, of these 483 were maternity cases.

The International Congress of Tuberculosis that was to have been held in Rome in September has been indefinitely postponed on account of the cholera.

Dr. J. Harvey Hall, graduate of the College of Medicine of the University of Southern California, class of 1905, died suddenly in Los Angeles on July 19th.

The following were elected members of the Los Angeles County Medical Association June 17th: Drs. E. R. Bradley, Granville J. Collier and Frank E. Detling.

A note from Dr. Geo. L. Cole, dated July 18th, says: "Among other things, I saw this morning Prof. Kocher, his son and first assistant each do a thyroidectomy.

Maricopa County, Arizona, has provided a special tuberculosis hospital five miles east of Phoenix. All consumptive patients heretofore at the County Poor Farm will be removed to this hospital.

Dr. W. E. McWhirt, assistant surgeon Miami Copper Co., member of the Gila County Medical Society, is spending his vacation at his old home, Roswell, New Mexico. Dr. J. H. Lacy, Miami, Arizona, is supplying his place.

Dr. H. Bert Ellis, Dr. Ernest A. Bryant and Dr. Geo. H. Kress have all been having a joyous time with the Bohemian Club in the redwoods.

The engagement is announced of Dr. Arnold Burkelman and Mrs. Mary J. Schallert, both of Los Angeles. The wedding will occur August 17th. Rt. Rev. Thos. J. Conaty, Bishop of Los Angeles and Monterey, will officiate.

Dr. W. A. Evans, health commissioner of Chicago until recently, delivered a lecture on "A Clean City" at the First Congregational Church in San Diego, under the auspices of the San Diego County Medical Society, on Thursday evening, July 6th.

Dr. W. W. Beckett of Los Angeles has been appointed First Lieutenant Medical Relief Corps, U. S. A. This honor has also been conferred on Dr. Frank P. Foster of New York, Dr. J. H. Musser of Philadelphia and a number of medical men of prominence.

The Santa Monica branch of the Los Angeles County Medical Association at a recent meeting elected the following officers for the ensuing year: Dr. John A. Balsley, president; Dr. H. Wilson Levensgood, vice-president; Dr. G. A. Fielding, secretary-treasurer.

Dr. Samuel Johnson said: There is nothing against which an old man should be so much on guard as putting himself out to nurse. I do not know a more disagreeable character than a valetudinarian, who thinks he may do anything for his ease, and indulges himself in the grossest freedom.

Dr. Maximilian P. E. Groszmann of Plainfield, New Jersey, has been visiting in Los Angeles. Dr. Groszmann is

the American authority on the subject of Exceptional Children, and was adding to his great fund of data on this subject while in Southern California, by visiting various institutions in and around Los Angeles.

Mr. Adolphus Busch rounded up the entertainment of the A. M. A. by giving a dinner at the Maryland on Saturday evening, July 15th, to the committee who had charge of the barbecue at the Busch Gardens. Dr. F. C. E. Mattison, as Mr. Busch's personal representative, was toastmaster, and the evening was very enjoyable.

The local members of the Neurological Section of the American Medical Association, Drs. Allen, Brainerd, Bishop, Fisher, McBride, Ross Moore and Orbison, entertained the section with a Spanish banquet given at old Casa Verdugo, on Tuesday evening of Association week. Plates were laid for forty. The easterners seemed to enjoy the novelty of a Spanish menu.

Dr. Philip M. Savage, superintendent of the San Bernardino Hospital, had a serious accident from the gasoline in his car getting ignited. There was a sudden burst of flames and the Doctor and his wife were both quickly enveloped. They both leaped to the ground, and the doctor gathered sand and threw it over his wife quickly extinguishing the flames, after which he took care of himself, but did not succeed until he was quite severely burned.

Dr. S. A. Knopf, in the course of an article in the New York Sunday Times on the garbage question (July 23), says: "I have just returned from the wonderful City of Los Angeles, where I attended the meetings of the American Medical Association. The scientific and social sessions, and particularly the latter, which the good people of Los An-

geles had so bountifully provided, caused many of us to return to our hotels or hosts' homes in the late hours of the night and sometimes in the wee hours of the morning. I watched the nightly street cleaning and the careful and quiet collecting of the tightly covered garbage cans with intense interest. There was no perceptible odor, and certainly very little noise."

Dr. Geo. W. Lasher of Los Angeles was found lying on the floor of his office Monday morning, July 24th, having suffered an attack of right hemiplegia with aphasia the evening before. He was removed on July 28th to the home of Dr. W. F. Perry, his office associate, where he now is. Physicians in attendance consider his condition to be the result of cerebral hemorrhage. The aphasia and facial paralysis has largely cleared up, the arm and leg remaining completely paralyzed. The doctor is steadily improving and his many, many friends are hoping for the best. Dr. J. H. Utley, who is in charge, says Dr. Lasher's intellect has not been impaired and he looks forward to getting back to his old haunts soon.

Arrangements have been made by the Trustees of Stanford University for the construction of the new Lane Library which is to be erected on the corner of Sacramento and Webster streets, San Francisco, at a cost of \$100,000. Excavation for the foundation has already been started and it is expected that the building will be ready for occupancy at the end of the school year. This building will house the Lane Medical Library, which was founded by Dr. Lane, former President of Cooper Medical College and the Library of the Stanford Medical Department. The Lane Library was endowed by Dr. Lane and contains about 37,000 volumes, making it the largest library in the United States in direct associa-



tion with a medical school. The following appointments have been made in the Medical Department of Leland Stanford Junior University: Dr. Thos. Addis, Carnegie research scholar and Fellow of the Royal College of Physicians of Edinburgh, to the position of Assistant Professor of Medicine, to have charge of the work in Clinical Chemistry; Dr. Jas. Eaves of Edinburgh and of Guy's Hospital, London,

Instructor in Surgery, to have charge of Surgical Pathology, and the following assistants were appointed to the Medical Dispensary: Dr. Geo. Lyman, Dr. W. H. Banks, Dr. W. R. P. Clark, Dr. Walter Schaller, Dr. P. H. Luttrell, and in the Surgical Dispensary Drs. W. W. Winterberg and I. W. Thorne. Provision has also been made for the appointment of an Academic Professor of Obstetrics and Gynecology.

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## SOCIETY PROCEEDINGS ARIZONA MEDICAL ASSOCIATION.

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### Minutes of the House of Delegates of the Twentieth Annual Session.

The Twentieth Annual Session of the Arizona Medical Association was held in the parlors of the Hotel Van Nuys, Los Angeles, Cal., on Monday, June 26th, 1911. The meeting was called to order at 11 a.m. by President John W. Foss of Phoenix.

Roll call by the Secretary showed ten members of the House present:—President John W. Foss, Phoenix; Secretary John W. Flinn, Prescott; Councillors John E. Bacon, Miami; Wm. I. Simpson, Phoenix.

Delegates—Coconino County Society, A. H. Schermann, Flagstaff; Gila County Society, R. D. Kennedy, Globe; Maricopa County Society, Roy Thomas, Phoenix; W. Warner Watkins, Phoenix; Mohave County Society, A. L. Tilton, Kingman; Yavapai County Society, R. N. Looney, Prescott.

The minutes of the general meeting, the House of Delegates, and the Council of the last annual session were then read and approved.

President Foss then delivered the annual address in which he complimented the Association on the character of its members to whom he referred as being strong men having the courage of their convictions. In his opinion eugenics is

the most important subject for medical consideration today. He referred at considerable length to what has been done along these lines in the lower animals and expressed the belief that a very great deal can be done to improve the physical condition of the human race if similar principles are carried out. He laid especial emphasis on the great importance of educating the general public on these questions and advocated thorough discussions in the County Medical Society as a preliminary step. He acknowledged that it took courage and back-bone to discuss such questions in public but emphatically declared his confidence in the members of the Arizona Medical Association to successfully handle this most important question.

The Secretary's report was then read and referred by the President to the Council.

The Treasurer's report was read and referred to the Council.

The President then appointed the following committees: Necrology, John E. Bacon, Ira E. Brown, W. C. Ellis. Resolutions, E. S. Godfrey, B. B. Moeur and C. S. Powell.

The President then called for a general discussion on the question of the

advisability of electing a delegate to the American Medical Association only every second year. This question was discussed by Roy Thomas of Phoenix, who read a letter from the Secretary of the American Medical Association in which the Secretary stated that the By-Laws of the A. M. A. required the election of the delegate for a term of two years. From this Thomas thought the Association had no choice, but was compelled to have its delegate serve a two-year's term. The President explained how the custom of electing a delegate every year had come to be in vogue, but advised conforming to the letter of the law in the future. Moeur of Tempe thought that the delegate should be elected for two years. It was moved by Watkins and seconded by Roy Thomas that the present delegate serve for two years and that if he is unable to attend the 1912 meeting of the A. M. A. that the alternate-delegate be **given credentials to serve in his place.** The motion was carried.

The next question discussed was the advisability of changing the plan of organization so that every member of the County Society shall be ipso facto a member of the American Medical Association. The Secretary explained that this matter had been referred to this Association by a Committee of the American Medical Association. The President spoke in favor of such a change. It was moved by Roy Thomas and seconded by Sehermann that our delegate to the A. M. A. be instructed to favor such a change in the plan of organization providing that the annual dues of the American Medical Association be not more than one (\$1.00) dollar per member. The motion was carried.

The question of the advisability of the Arizona Medical Association adopting some plan of medical defense was then brought before the House for discussion. The Secretary read some correspondence he had received from the Council on Health and Public Instruction of the

American Medical Association. In speaking of the question he expressed the opinion that organization and loyalty in the profession were the best means of medical defense and that if the members of the profession of the different counties were thoroughly organized and would cultivate a proper spirit of loyalty towards one another no other medical defense was necessary. Palmer of Mesa opposed this idea and advocated adopting some plan of medical defense similar to that adopted by other State Associations. Moeur of Tempe favored the Secretary's idea. Ira Brown speaking as a surgeon for a mining company referred to the modern tendency towards demanding damages on the slightest provocation especially by foreign laborers. He thought the matter should be carefully inquired into and drew attention to surgeons of limited means practicing alone in an isolated mining camp, and their inability to bear the expenses of a suit for damages. Bacon of Miami emphasized the tendency of foreign laborers to institute suits for damages. He was of the opinion that this Association is not yet in a position to undertake any plan of medical defense. He moved, seconded by Palmer of Mesa, that the President appoint a committee to inquire into what is being done in other states, to recommend some definite plan of action for this Association, and to report at the next annual meeting. Carried. The President appointed the following committee: John E. Bacon, Miami; Ira E. Brown, Kelvin, and C. E. Yount of Prescott.

The meeting then adjourned.

The second session met at 2:45 p.m., with President John W. Foss in the chair. The report of the Committee on Neurology was read and adopted.

The first question discussed was uniform regulation of membership in County and State Associations. The Secretary explained why this question was brought up for discussion and re-

ferred to the case of R. Watson Graham, a member of the Yavapai County Society, who was refused admission to the Los Angeles County Society on a transfer card from the Yavapai Society. Payne Palmer of Los Angeles stated that he had a similar experience and that on account of conditions peculiar to Southern California the Los Angeles County Society was compelled to adopt a rule refusing admission to any physician on a transfer card from any other society. He stated that Dr. Graham had since joined the Los Angeles County Society in the regular way. It was moved by Flinn and seconded by Simpson that a committee of three be appointed to take up the matter with the American Medical Association and report at the next annual meeting. The President appointed the following committee: John W. Flinn of Prescott, Wm. I. Simpson of Phoenix, and W. Warner Watkins of Phoenix.

The next question discussed was the advisability of the Arizona Medical Association publishing a medical journal. Watkins of Phoenix read a report from the Maricopa County Society which appears in another part of the minutes. Watkins was strongly in favor of such a publication as was outlined in his report. Bacon of Miami expressed doubt as to whether a publication could be published at the prices mentioned in Watkins' report, and Bacon asked for an expression of opinion from Brown of El Paso, who was present. Dr. Brown gave a rather full account of the nature of the Bulletin published by the El Paso County Medical Society. This bulletin appears in eight issues during the year, there being four months in which it is not published. They issue from three hundred and fifty to five hundred copies per month, and it is financed largely by advertisements they carry.

Flinn of Prescott opposed the idea of publishing a medical journal and strongly advocated continuing our pres-

ent relations with the SOUTHERN CALIFORNIA PRACTITIONER. He went into the history of publication of the proceedings of the Association in the past at considerable length, and pointed out that the present arrangement with THE PRACTITIONER had proven the most satisfactory both as regards the general results obtained and money saved; but stated that the Secretary had received practically no assistance whatever in the past in obtaining and preparing material for THE PRACTITIONER and deprecated the idea that we are yet in a position to publish a journal of our own. Watkins of Phoenix thought that the fact that the Secretary had received no assistance for THE PRACTITIONER was an argument in favor of our issuing a publication of our own. Ketcherside of Yuma advocated postponing the matter for one year. Roy Thomas of Phoenix favored the publication and in reply to a question from him the Superintendent of Public Health stated that his office would contribute two hundred and forty dollars per year towards the expenses of such a publication in return for publishing the reports of his office. Shine of Bisbee thought we should continue our present arrangement with THE PRACTITIONER for at least another year; that the different County Secretaries and their members should assist the Secretary in obtaining and preparing material for THE PRACTITIONER and in this way prove just what our Association could do. When we make a marked success of our department in THE PRACTITIONER it will be time enough to think of publishing a journal of our own. Watkins of Phoenix moved, seconded by Flinn of Prescott, that the Council be instructed to investigate the matter, giving it full consideration and act accordingly. Schermann of Flagstaff moved, seconded by Looney of Prescott, that the Council investigate the matter and report at the next annual meeting. The amendment was carried.



The next question discussed was the advisability changing Article 9, Section 3, of the Constitution so as to provide for the election of officers by ballot of all members of the Association; these ballots to be mailed to the Society before the annual meeting.

As Article 14 of the Constitution provides for one year's notice of all changes in the Constitution, Watkins of Phoenix presented the following proposed amendment to be considered at the next annual meeting of the Association:

"The officers of this Association shall be nominated and elected as follows: Not more than ninety (90) days nor less than sixty (60) days before the next annual meeting of the Association, the Secretary shall send a notice to all members of the Association in good standing inviting them to send to him a nomination for each of the offices to be filled. The names of all persons who are nominated by as many as fifteen (15) members shall be announced thirty (30) days prior to said next annual meeting in a circular sent to the members with a form for a ballot. Each member in good standing shall be entitled to one (1) vote for each of the officers, choosing his candidates from the list of nominees submitted by the Secretary. The ballot may be cast by mail or in person and shall be counted by a committee of the House of Delegates on the last day of the General Session. The candidates receiving the largest number of votes shall be declared elected. In case of an equality of votes between two or more candidates, the person who shall hold the office shall be determined by lot."

Watkins of Phoenix also gave notice of the following amendment to Section 1 and Section 2 of Article 12 of the Constitution; the same to be considered at the next annual meeting.

Section 1, Article 12, to be amended to read: "A general meeting of the

Association may, by a majority of votes of the members present," etc., etc.

Section 2, Article 12, to be amended to read: "The House of Delegates may, by a majority vote of its own members," etc., etc.

The next question discussed was the advisability of changing Chapter 4, Section 2, of the By-Laws to provide for larger representation from County Societies in the House of Delegates. It was moved by Simpson and seconded by Roy Thomas that Section 2 of Chapter 4 be amended to read, "one delegate for every ten members or for each fraction thereof," instead of as at present. Carried. It was moved by Simpson and seconded by Watkins that Section 3, Chapter 4, of the By-Laws be amended to read as follows: "Seven delegates shall constitute a quorum." Carried. It was moved by Flinn and seconded by Simpson that Section 2, Chapter 2, of the By-Laws be amended to read, "on petition of seven delegates or twenty members." Carried.

The next business was the election of officers. For President, Francis E. Shine of Bisbee was nominated by Bacon of Miami, seconded by Powell of Benson and elected unanimously. For Secretary, John W. Flinn of Prescott was nominated by Simpson of Phoenix, seconded by Looney of Prescott, and elected unanimously. For Vice-President, John E. Bacon of Miami was nominated by Flinn of Prescott, seconded by Roy Thomas of Phoenix and elected unanimously. For Second Vice-President, A. H. Schermann of Flagstaff was nominated by Bacon of Miami and seconded by Palmer of Mesa and elected unanimously. For Third Vice-President, C. S. Powell of Benson was nominated by Bacon of Miami, seconded by Kennedy of Globe and elected unanimously. For Treasurer, E. B. Ketcherside of Yuma was nominated by Roy Thomas of Phoenix, seconded by Looney of Prescott and elected unanimously. For Es-

sayist, W. Warner Watkins of Phoenix was nominated by Flinn of Prescott, seconded by Roy Thomas of Phoenix and unanimously elected. For Councillor for the Northern District, to fill out the unexpired term of the late John K. McDonnell of Jerome, A. L. Tilton of Kingman was nominated by Flinn of Prescott, seconded by Schermann of Flagstaff and unanimously elected. For Councillor of the Southern District, R. D. Kennedy of Globe was nominated by Bacon of Miami, seconded by Looney of Prescott and unanimously elected.

Bacon of Miami moved, seconded by Flinn of Prescott, that the next annual meeting of the Association be held in Bisbee, Arizona, the second Tuesday and Wednesday of May, 1912.

Under the head of miscellaneous business Watkins of Phoenix introduced the following resolution by request:

"Whereas, the present custom of serving alcoholic liquors at banquets or dinners given to or by medical organizations is injurious to public morals and reflects upon the consistency of the medical profession as disciples of health.

"Be it resolved that the Arizona Medical Association disapproves of this custom and requests its County organizations to discontinue this particular phase of hospitality in their annual entertainment of this Association."

After quite a spirited debate in which Watkins and Roy Thomas of Phoenix and Ketcherside of Yuma favored the resolution, and Moeur of Tempe and Looney and Flinn of Prescott opposed it, it was moved by Bacon, seconded by Simpson that the question be submitted to a general referendum of the members of the Association. This motion was carried.

President Shine was escorted to the chair and made a few remarks thanking the Association for the honor conferred upon him and referring to the work of the Association for the ensuing year. Bacon of Miami gave a short address on

Expert Medical Testimony, advising the Association to take definite steps to remedy the present disgraceful conditions.

Kennedy of Globe spoke of the concerted effort that is at present being made against medical legislation in all parts of the country and advised the Committee on Public Policy and Legislation to be alive to the dangers of undesirable legislation at the next meeting of our Legislature.

Foss of Phoenix spoke on undesirable advertisements in our medical journals and advised that an effort be made to have such advertisements discontinued.

On motion the Association adjourned sine die to allow the members to attend the several sections of the American Medical Association which met in Los Angeles on the following three days.

(Signed) JOHN W. FLINN,  
Secretary.

#### REPORT OF THE SECRETARY.

PRESCOTT, ARIZ., June 24, 1911.

*To the President and Members of the House of Delegates of the Arizona Medical Association.*

GENTLEMEN:—I beg to submit herewith the annual report of the Secretary for the year 1910-11. At the beginning of the present fiscal year the Association had 137 members. Before the close of the calendar year 1910, one member was added from Cochise County making a total of 138 members.

Up to date this year (1911) we have enrolled 120 members. Santa Cruz County has not yet reported, and there will probably be a few additional members from the other counties.

The Secretary is highly gratified at being able to report the formation of three new County Societies during the year: Gila, Coconino and Mohave, and that active work is now being carried on in these counties. Our membership at present is as follows:

Maricopa County, 41; Cochise County, 22; Yavapai County, 19; Pima County,

15; Gila County, 12; Coconino County, 8; Mohave County, 3. Four members of the Yavapai County Society are residents of Mohave County and paid their annual dues to the Yavapai Society before the Mohave County Society was formed. These will no doubt transfer to the Mohave County Society when that Society will have seven members and the Yavapai County Society fifteen.

During the year we lost two members by death: Thos. B. Davis, an ex-president of this Association, and John K. McDonnell, whose removal has left a vacancy in our Council. Both were members of the Yavapai County Society.

The arrangement of last year with the SOUTHERN CALIFORNIA PRACTITIONER was continued and as in the past the publisher performed his part of the contract very satisfactorily. Unfortunately, however, very little interest was taken in the work by the members of this Association. No County Secretary forwarded reports of any kind during the year. As this subject will come up for full discussion the Secretary does not care to make any recommendation in this report.

Last fall Dr. J. N. McCormack, the official organizer of the American Medical Association, spent a week in Arizona and visited all the County Societies except that of Santa Cruz. Undoubtedly his visit was of assistance in organizing the county societies in Gila and Coconino Counties.

As it was necessary to elect a delegate to the 1911 meeting of the American Medical Association, before the present meeting of this Association, the Secretary referred the matter to each member of the House of Delegates by mail and Ancil Martin of Phoenix received the unanimous vote for delegate and Francis E. Shine of Bisbee for alternate-delegate.

All of which is respectfully submitted.

JOHN W. FLINN,  
Secretary.

# REPORT OF THE TREASURER.

YUMA, ARIZ., June 30, 1911.

MR. PRESIDENT:—I beg leave to submit my annual report as follows:

## CASH RECEIVED.

1910.	
April 20, Cash on hand.....	\$345.10
Nov. 3, 1 member Cochise County	2.00
1911.	
March 4, 12 members Gila County	24.00
April 5, 22 members Cochise County	44.00
April 22, 27 members Maricopa County .....	54.00
May 1, 9 members Maricopa County	18.00
May 24, 3 members Maricopa County	6.00
June 20, 8 members Coconino County .....	16.00
June 20, 2 members Maricopa County .....	2.00
June 20, 15 members Pima County	30.00
June 20, 2 members Mohave County	6.00
June 26, 19 members Yavapai County .....	38.00
June 26, 1 member Mohave County	2.00
June 26, 1 member Maricopa County .....	2.00
June 26, 1 member Pima County...	2.00
	\$591.10

## CASH PAID OUT.

1910.	
May 7, Minnie J Seaman, Stenographer .....	\$ 15.00
June 10, Minnie J. Seaman, Stenographer .....	15.00
June 10, John W. Flinn, Stamps...	5.00
June 10, Journal Miner Publishing Co. ....	12.00
Nov. 8, Minnie J. Seaman, Stenographer .....	20.00
Nov. 8, Western Union Tel. Co....	3.90
Nov. 8, John W. Flinn, Stamps....	5.00
Dec. 16, Minnie J. Seaman, Stenographer .....	15.00
Dec. 16, Western Union Tel. Co....	5.85
Dec. 16, John W. Flinn, Telephone, etc. ....	2.65
March 2, John W. Flinn, Stamps...	5.00
March 2, Donofrio-Zunkel Confectionery Co., Wreath .....	5.00
May 10, Minnie J. Seaman, Stenographer .....	20.00
May 10, John W. Flinn, Stamps...	5.00
June 20, Journal Miner Pub. Co....	12.50
June 20, Minnie J. Seaman, Stenographer .....	5.00
June 20, John W. Flinn, Stamps..	5.00
June 30, Southern California Practitioner .....	96.00
	\$252.40
Balance .....	\$338.20

E. B. KETCHERSIDE,  
Treasurer.

# REPORT OF COUNCILLORS ON AUDITING SECRETARY'S AND TREASURER'S REPORTS.

To the Officers and Members of the House of Delegates of the Arizona Medical Association.

GENTLEMEN:—The Councillors of this Association have examined the reports of



the Secretary and the Treasurer, and beg to report as follows:

The balance on hand at the beginning of the present fiscal year was .....\$345.10  
The total receipts were..... 246.00

\$591.10

The expenses for the year were as follows:

Southern California Practitioner...\$ 96.00  
Secretary's Stenographer ..... 90.00  
Stationery and Printing..... 24.50  
Stamps ..... 25.00  
Telegrams and Telephone Messages 12.40  
Wreath ..... 5.00

Making a total of.....\$252.90

This leaves a balance on hand of \$338.20

We have compared the vouchers with the items of expenditure and find them to correspond exactly and that the accounts are correctly kept.

All of which is respectfully submitted.

JOHN E. BACON,

WM. I. SIMPSON,

Councillors.

#### REPORT OF THE COMMITTEE ON NECROLOGY.

Whereas, death has removed from our midst Dr. John K. McDonnell, age 38, of Jerome, Arizona; graduate of Dartmouth Medical College. For many years a valued member of the Yavapai County and the Territorial Association; died in Jerome, Arizona, of acute appendicitis.

Dr. McDonnell served for two years as Councillor of the Association. He left a wife and three children.

Therefore be it resolved, that the Arizona Medical Association has lost a valued member who had the interest of his profession at heart. We sincerely regret his loss and feel keenly the vacancy caused by his demise.

Our heartfelt sympathy is extended to the bereaved wife and children in this, our loss.

Be it further resolved, that a copy of this resolution be sent to his widow and family and spread upon the minutes of this Association.

And whereas, death has removed from our midst Dr. Thomas B. Davis, age 67. Graduate of the University of Louisville,

Medical Department: Known as the fighting doctor of the United States Army with which he served for many years, died of general peritonitis at Prescott, Arizona.

He left no family.

Dr. Davis was the first President of the Yavapai County Society, a charter member, and was Ex-President of the Territorial Association.

Therefore be it resolved, that the Arizona Medical Association has lost a valued member whose record for attainments in his profession and patriotic devotion to his country's cause is a bright example for those who knew him.

Resolved that our sympathy be extended to his relatives and friends and that a copy of this resolution be spread on the minutes of this Association.

(Signed)

W. C. ELLIS,

IRA E. BROWN,

JOHN E. BACON,

Committee.

#### REPORT OF THE COMMITTEE OF THE MARICOPA COUNTY MEDICAL SOCIETY TO CONSIDER THE ADVISABILITY OF THE ARIZONA MEDICAL ASSOCIATION PUBLISHING A MEDICAL JOURNAL.

Several months ago the Maricopa County Medical Association asked its President to appoint a Committee to investigate thoroughly into the possibilities of a Medical Journal for Arizona and to report their findings to this body. The President turned the matter over to the Secretary of said County Association inasmuch as he had already been corresponding with several people on the same question. While the following is in the nature of a report, it is also permeated throughout by the personal opinion of the "committee." The Committee is thoroughly in favor of a publication along the lines suggested herein so that this report must be looked upon as a biased one.

(1) Regarding the possibility and advisability of beginning such a journal. No one will deny the advisability of

some medium of communication among the members of such an organization as the Arizona Medical Association. This is all the more needed where we are located, often with but one doctor in a settlement and this far from ready communication with others of our profession. A remarkable fact considering this condition is that a year ago we stood third in the list of States in the percentage of physicians who were members of the American Medical Association, with over 60 per cent. of our territorial members belonging to the national organization. This reflects great credit on us, but it means another thing; it means a desire on the part of our doctors to keep in touch with each other, and it is evidence that they would welcome any means of communication coming regularly which would give them information regarding the work of the profession in the territory.

This committee is not, for a moment, disregarding the value to us of our relations with the SOUTHERN CALIFORNIA PRACTITIONER; this has been a valuable adjunct to our work in Arizona and has been very pleasant, as well. But our arrangement with the PRACTITIONER lacks a personal and local flavor which is needed to make any publication palatable, and this committee thinks that it would be to our advantage to have a publication of our own, even though we continue our present arrangement with the PRACTITIONER.

Regarding the advisable size and style of such a journal: This has been the most difficult feature of the matter upon which to secure definite data and the suggestions offered here are chiefly those of Dr. Geo. H. Simmons, Editor of the Journal of the American Medical Association. It is suggested that we begin the publication of a periodical which will be no more than a bulletin, at first, say an eight or sixteen-page pamphlet every two months. This to contain no

advertising except what comes unsolicited and this only unless it conforms to the standard of the American Medical Association Journal.

This publication can be either one containing notices from county associations, programs of study classes, announcements from the Secretary of the Arizona Association and announcements from the Territorial Board of Health with any letters of general interest which come without effort on his part, to the editor of the bulletin, who, by the way, should be the Secretary of the Arizona Association.

The publication could be enlarged at any time to receive annual reports either of the Association, or of the Territorial Board of Health, or it could carry each time a scientific paper, or abstracts from the work of study classes.

Regarding the cost of such a publication: Only the lowest figures need to be given. The job office of the American Medical Association will print 200 copies of an 8-page bulletin, pages the same size as their own bulletin, for \$17.00, sending them to us ready to mail. They will print 16 pages, 200 copies ready to mail for \$31.00. We could, then, print and mail every two months a sixteen-page journal for \$200.00 for the year.

The committee makes no suggestions regarding the method of paying for this work. However, the opinion is advanced that even if we printed such a journal and simply paid for it out of the general fund of the Arizona Medical Association, it would not bankrupt us and would be an invaluable means of cementing our membership into a compact organization and sending us into the first, instead of the third place, among the State associations of the country. However, there would be other means of cutting down this drain upon our treasury. But with the maximum expense of the largest size of publication recommended,

without any means of reducing it, the plan is perfectly feasible and will be of great value to us.

This publication should be sent to every physician in the territory regardless of his membership in our Association. And, too, at a little extra cost, we could have 500 copies printed and send it to all public officials or any whom we might wish to influence by articles it contains. There are possibilities in the publication of such a bulletin far beyond those of a simple means of communication between our constituent members, as important as that feature is.

Respectfully submitted,

W. WARNER WATKINS,  
Committee.

**MINUTES OF THE COUNCIL OF THE  
TWENTIETH ANNUAL SESSION, HELD  
AT LOS ANGELES, JUNE 26, 1911.**

Council called to order at 10:30 a.m. Monday, June 26, 1911, and organized. Members present were Foss, Flinn, Bacon, Simpson. Absent, McDonnell. Dr. Bacon was elected chairman. Dr. Simpson clerk. Considered routine business. Adjourned to 1 p.m.

Council met at 1:30 p.m., with same members present. Accounts of Secretary and Treasurer were audited and found correct, with a balance of \$338.20. During the year Dr. Bacon organized the Gila County Medical Society.

At 5:30 p.m. Dr. Kennedy of Globe was elected chairman in place of Dr. Bacon, an out-going member. The matter of organizing county societies in different counties in Arizona was discussed. Dr. Tilton was asked to look into the matter in Apache and Mohave counties; Dr. Kennedy in Greenlee and Graham counties, and Dr. Simpson in Yuma county.

Dr. Simpson moved that the contract with the SOUTHERN CALIFORNIA PRACTITIONER be continued for another year, and that the several secretaries be urged to furnish reports of county societies to

the Arizona Editor for publication; also that they make an effort to secure legitimate advertisements to take the place of those which are not desirable. Motion carried.

It was suggested that the program be made up with one and one-half days' scientific program; one-half day being reserved for purely business matters.

It was suggested that Massachusetts, New York and New Jersey were States which have good medical laws and that the laws of these be looked into carefully by the Committee on Public Policy and Legislation when Statehood is secured.

The President appointed the following Committee on Public Policy and Legislation: Ancil Martin of Phoenix; O. E. Plath, Phoenix; R. D. Kennedy, Globe; John E. Bacon, Miami, the President and Secretary.

The President appointed the following Committee on Scientific Work: W. Warner Watkins, Phoenix; G. A. Bridge, Bisbee; C. E. Yount, Prescott, and the Secretary.

The Council then adjourned sine die.

(Signed) W. I. SIMPSON, Clerk.

The following members were registered at the twentieth annual session of the Arizona Medical Association, held in Los Angeles, June 26, 1911:

Name.	County Society.	Address.
W. Warner Watkins.....	Maricopa.....	Phoenix
W. C. Ellis.....	Maricopa.....	Phoenix
A. L. Tilton.....	Mohave.....	Kingman
R. D. Kennedy.....	Gila.....	Globe
John R. Whiteside.....	Mohave.....	Kingman
E. B. Necherside.....	Pima.....	Yuma
E. B. Moenur.....	Maricopa.....	Tempe
Reed E. Thomas.....	Maricopa.....	Phoenix
Iroy R. Knottis.....	Maricopa.....	Yuma
John E. Bacon.....	Gila.....	Miami
W. I. Simpson.....	Maricopa.....	Phoenix
John W. Foss.....	Maricopa.....	Phoenix
John W. Flinn.....	Yavapai.....	Prescott
C. S. Powell.....	Cochise.....	Benson
L. H. Richards.....	Maricopa.....	Gila Bend
R. F. Palmer.....	Maricopa.....	Mesa
R. N. Leoney.....	Yavapai.....	Prescott
Francis E. Shine.....	Cochise.....	Bisbee
W. W. Wilkinson.....	Maricopa.....	Phoenix
Ira E. Brown.....	Maricopa.....	Kelvin
R. W. Craig.....	Maricopa.....	Phoenix
A. H. Schermann.....	Cocconino.....	Flagstaff
Frank F. Barham.....	Pima.....	Kelvin
H. L. Carpenter.....	Mohave.....	Goldroad
C. D. Jetties.....	Cocconino.....	Williams
B. S. Frary.....	Yavapai.....	Los Angeles
Harry T. Southworth.....	Yavapai.....	Prescott



**OFFICERS OF THE ARIZONA MEDICAL ASSOCIATION 1911-12.**

President Francis E. Shine, M.D., of Bisbee, was born January, 1871; graduate of the University of the South, Sewanee, Tennessee, Academic 1892; University of Virginia, Medical, 1895; Interne at the New York Hospital (Medical division) January, 1897 to July, 1898; Interne at the New York Hospital (Surgical division) July, 1898, to January, 1900; after finishing the house service at the New York Hospital, settled in private practice in New York. In 1901 received the appointment as Instructor and Chief of the Clinic of Genito-urinary Surgery of Cornell University (Medical department), New York City. In 1902 received the appointment of Assistant Attending Surgeon of Bellevue Hospital (Cornell division). Left New York on account of health and remained at Saranac Lake, New York, for six months. Came to Arizona July, 1903. Now Chief Surgeon of the Copper Queen Consolidated Mining Company at Bisbee.

First Vice-president, John E. Bacon, M.D., of Miami, was born at Blossburgh, Pennsylvania, March 1, 1869; graduated Wellsboro, Pa., High School, 1887; two years' special medical preparatory course Lafayette College, Easton, Pa., 1887-1889; graduated University of Pennsylvania Medical Department, 1892. Practiced with father for two years; post-graduate course Philadelphia one year; located in Buffalo, N. Y., 1905, where practiced surgery until Spanish war. Was contract surgeon from August, 1898, to January, 1901, when located in Tombstone, Arizona. Was in charge County Hospital three years, 1901-1903. Be-

came Chief Surgeon Tombstone Consolidated Mines Company 1903, and continued as such until 1910. Became Chief Surgeon Miami Copper Company 1910, where still remain. Ex-president Cochise County Medical Society. At present member A.M.A., Arizona Medical Association. President Gila County Medical Society. Holds commission as First Lieut. Medical Reserve Corps, United States Army. Have accomplished nothing worthy of remark. Have sincerely tried to do no harm. Practice my profession with my conscience always on the job. Never did anything but good toward a worthy member of our profession in my life, and never will. That's about all.

Treasurer, E. B. Ketcherside, M.D., of Yuma, was born September 7, 1846, near Trenton, Georgia; was married, September 3, 1868, to Miss Eliza J. Allison of Trenton, Georgia. Their children numbered thirteen, ten of them living to be grown. He was graduated by the Medical Department of the University of Tennessee, February, 1884; practiced in Georgia, Tennessee, in Texas and in Arizona for the last seventeen years. Was a member of the Medical Association of Tennessee and the Tri-state Medical Association of Tennessee, Alabama and Georgia, while in the East. A member of the Arizona Medical Association, and its treasurer for the last four years; a member of the American Medical Association and of the Pacific Association of Railway Surgeons. Has been District Surgeon for S. P. Co. for the last nine years. Is County Superintendent of Health of Yuma county, Arizona. A strong advocate for a higher standard of morals, as well as for higher education for the physician.

OFFICERS OF THE ARIZONA MEDICAL ASSOCIATION SINCE ITS ORGANIZATION AT PHOENIX, MAY 25, 1892.

Sessions	Date of Meeting	Place of Meeting	Presidents	Vice-President	Second Vice-President	Third Vice-President	Secretary	Treasurer	Essayists
1	May, 1892	Phoenix	*J. A. Miller	Ancil Martin	M. M. Gilbert	I. B. Hamilton	J. T. Green	W. H. Sullivan	.....
2	Feb., 1893	Phoenix	H. A. Hughes	R. C. Dryden	*Chas. H. Jones	A. H. Hoefler	L. D. Dameron	W. T. Barry	*Chas. H. Jones
3	May, 1894	Phoenix	Ancil Martin	F. G. Cutter	T. S. Collins	H. E. Stroud	L. D. Dameron	W. T. Barry	*Chas. H. Jones
4	Feb., 1895	Phoenix	F. G. Cutter	Nell McIntyre	R. G. Fox	A. M. Givens	L. D. Dameron	I. B. Hamilton	*Chas. H. Jones
5	May, 1896	Prescott	*D. M. Furman	E. W. Dutcher	T. S. Collins	H. N. Gerard	L. D. Dameron	Chas. H. Jones	*T. B. Davis
6	Jan., 1897	Phoenix	*Chas. H. Jones	G. W. Brockway	T. H. Salin	E. N. Fenner	L. D. Dameron	Wm. Duffield	T. S. Collins
7	Jan., 1898	Tucson	W. V. Whitmore	W. Wyle	S. McIntyre	G. M. Brockway	O. E. Plath	W. H. Foley	Ancil Martin
8	Jan., 1899	Phoenix	T. B. Davis	John Bennett, Jr.	N. I. Clappolo	*N. H. Matias	O. E. Plath	W. H. Foley	F. H. Vetter
9	May, 1900	Prescott	*T. B. Davis	H. H. Stone	E. A. Early	Wm. Duffield	*Chas. H. Jones	W. H. Foley	Ancil Martin
10	May, 1901	Phoenix	H. W. Fenner	W. H. Stone	O. E. Early	O. S. Baido	*Chas. H. Jones	W. H. Foley	John W. Foss
11	May, 1902	Tucson	Wm. Duffield	W. V. Whitmore	A. W. Olcott	L. D. Dameron	*Chas. H. Jones	W. H. Foley	I. G. Cutter
12	May, 1903	Phoenix	W. H. Wart	*W. V. Whitmore	*A. W. Olcott	E. B. Ketcherside	John W. Foss	W. M. Brockway	.....
13	Apr., 1904	Tucson	L. D. Dameron	W. E. Purcell	E. B. Davis	C. E. Yount	John W. Foss	W. M. Brockway	.....
14	June, 1905	Phoenix	*O. E. Plath	Ancil Martin	O. E. Plath	L. F. Kaul	John W. Foss	R. E. Palmer	W. V. Whitmore
15	Apr., 1906	Phoenix	A. R. Hickman	Wm. V. Whitmore	A. R. Hickman	R. N. Looney	John W. Foss	R. E. Palmer	John W. Foss
16	Apr., 1907	Prescott	O. E. Plath	A. W. Olcott	Jas. E. Drane	E. S. Gustaf	John W. Foss	R. E. Palmer	W. W. Fenner
17	May, 1908	Tucson	A. W. Olcott	John W. Foss	C. E. Yount	A. L. Gustaf	John W. Foss	R. E. Palmer	W. W. Fenner
18	Apr., 1909	Prescott	R. N. Looney	John W. Foss	W. D. Kennedy	E. S. Gustaf	John W. Foss	R. E. Palmer	W. W. Fenner
19	Apr., 1910	Phoenix	F. E. Shine	John E. Bacon	A. H. Schernahn	C. S. Powell	John W. Foss	R. E. Palmer	W. W. Fenner
20	June, 1911	Los Angeles, Cal.	.....	.....	.....	.....	.....	R. E. Palmer	W. W. Fenner

\*D.-ceased.

## ARIZONA BOARD OF MEDICAL EXAMINERS—JULY REPORT.

At the July examination the secretary reported to the Board that the Supreme Court on May 6th denied a motion of Dr. R. A. Aiton for a rehearing in his case against the Board of Medical Examiners and that Dr. Aiton had appealed his case to the Supreme Court of the United States.

The following physicians were elected to serve as officers for the ensuing year: Otto E. Plath, president; Wm. V. Whitmore, vice-president; Ancil Martin, secretary. The other members of the Board are: Dr. G. F. Manning and Dr. Chas. F. Hawley.

Nine physicians presented themselves for examination. Of these five successfully passed the Board, and four were refused certificates. The successful ones were graduates from the following:

Western Reserve University, 1902.

Western Reserve University, 1909.

Bellevue, 1899.

P. & S., Los Angeles, Cal., 1910.

Med. Dept. University of Alabama, 1911.

Those failing to receive certificates were graduates from:

Louisville Medical College, 1899.

P. & S., Little Rock, Ark., 1911.

State Univ. of Iowa, 1910.

Univ. Med. College, Kansas City, 1909.

The annual report of the Board to the Governor for the fiscal year ending June 30th, 1911, was approved.

(Signed) ANCIL MARTIN,  
Secretary.

Bismarek, in conversation with Lord Goschen, said: "I have often regretted what I have eaten, but never what I have drank."

"But have you not been the worse for it?"

"I did not say that I had not been the worse for it; I said I had never regretted it."

## MISCELLANEOUS

### LEOPOLD II—HIS WITTICISMS AND MENTAL VAGARIES.\*

That was a delicious sally in which he indulged at the expense of a certain Brazilian minister, who was paying his first visit to court, and who appeared to be under the impression that the King was hard of hearing. At any rate, he made the most extraordinary efforts to speak loud, and to pronounce his words distinctly. The King maintained an impassive countenance, but ended by interrupting him:

"Excuse me, monsieur le ministre," he said, with an exquisite smile. "I'm not deaf, you know; it's my brother."

Picture the diplomatist's face!

Lastly, let me recall his stinging reply to one of our most uncompromising radical deputies, who was being received in audience and who, falling under the spell of King Leopold's obvious intelligence, said to him, point-blank:

"Sir, I am a republican. I do not hold with monarchies and kings. Nevertheless, I recognize your great superiority, and I confess that you would make an admirable president of a republic!"

"Really?" replied the King, with his most ingenious air. "Really? Do you know, I think I shall pay a compliment in your style to my physician, Dr. Thirier, who is coming to see me presently. I shall say, 'Thirier, you are a great doctor, and I think you would make an excellent veterinary surgeon!'"

One evening, at a reception which the King was giving to the local authorities in his chalet at Ostende, the venerable rector of the parish came up to him with an air of concern and, drawing him respectfully aside, said:

"Sir, I feel profoundly grieved.

There is a rumor, I am sorry to say, that Your Majesty's private life is not marked by the austerity suited to the lofty and difficult task which the Lord has laid upon the monarchs of this earth. Remember, Sir, that it behooves kings to set an example to their subjects."

And the worthy rector, taking courage from the fact that he had known Leopold II for thirty years, preached him a long sermon. The penitent, adopting an air of contrition, listened to the homily without moving a muscle. When, at last, the priest had exhausted his eloquence:

"What a funny thing monsieur le cure!" murmured the King, fixing him with that cold glance of his, from under his wrinkled eyelids. "Do you know, people have told me exactly the same thing about you! Only, I refused to believe it, you know!"

He had idiosyncrasies, like most mortals. For instance, he used to have four buckets of sea-water dashed over his body every morning, by way of a bath; he expected partridges to be served at his meals all the year round; and he had his newspapers ironed like pocket handkerchiefs before reading them—he could not endure anything like a fold or crease in them. Lastly, when addressing the servants, he always spoke of himself in the third person. Thus he would say to his chauffeur, "Wait for him," instead of "Wait for me." Those new to his service, who had not been warned, were puzzled to know to what mysterious person he referred.

A strange eccentric, you will say. No doubt, although these oddities are difficult to understand in the case of a man who displayed the most practical mind, the most lucid intelligence and the shrewdest head for business the

\*Abstracted for the Southern California Practitioner from the Contemporary Review.



moment he was brought face to face with the facts of daily life.

How are we to explain why he reserved the kindness and gentleness which he so harshly refused to his wife and daughters for his unfortunate sister, the Empress Charlotte, whose mysterious madness had kept her for forty-two years a lonely prisoner within the high walls of the Chateau de Bouchout?

And yet, every morning of those forty-two years he never failed, when at Laeken, to go alone across the park to that silent dwelling and spend two hours in solitary converse with the tragic widow. Each day, with motherly solicitude, he personally supervised the smallest details of that shattered existence.

## BOOK REVIEWS

**MERCK'S MANUAL OF THE MATERIA MEDICA** (Fourth Edition.) A Ready Reference Pocket Book for the Physician and Surgeon. Containing a comprehensive list of Chemicals and Drugs—not confined to "Merck's"—with their synonyms, solubilities, physiological effects, therapeutic uses, doses, incompatibles, antidotes, etc.; a table of Therapeutic Indications, with interspersed paragraphs on Bedside Diagnosis, and a collection of Prescription Formulas beginning under the indication "Abortion" and ending with "Yellow Fever;" a Classification of Medicaments; and Miscellaneous, comprising Poisoning and Its Treatment; and an extensive Dose Table: a chapter on Urinalysis, and various tables, etc. (Merck & Co., 45 Park Place, New York. 1911. 493 pages. Sent on receipt of forwarding charges of 10 cents. in stamps, to physicians, or to students enrolled in any College of Medicine, in the United States.)

**A MANUAL OF DISEASES OF INFANTS AND CHILDREN.** By John Ruhrah, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore. Third Revised Edition. 12mo. volume of 534 pages, fully illustrated. Philadelphia and London: W. B. SAUNDERS COMPANY, 1911. Flexible leather, \$2.50 net. A handy volume for ready reference.

**A MANUAL OF OBSTETRICS.** By A. F. A. King, M.D., Professor of Obstetrics and Diseases of Women in the Medical Department of the George Washington University, Washington, D. C., and in the Medical Department of the University of Vermont, etc. Eleventh Edition, enlarged and thoroughly revised. 12mo., 713 pages with 341 illustrations and three colored plates. Cloth, \$3.75 net. LEA & FEBIGER, Philadelphia and New York, 1910.

**SPIROCHAETES.** By W. Cecil Bosanquet, M.D., Fellow of the Royal College of Physicians, London. Octavo of 152 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1911. Artistically bound. \$2.50 net.

Most complete is this work in its summing up of what little is known about a

subject entirely hedged in by scientific perplexities. One cannot help being astonished at the radically different opinions by trained scientists as to the biological classification of spirochaetes. One group is sure they are protozoan and another just as sure they are bacterial and the conflict seems as often one of evidence itself as of judgment.

Much uncertainty exists as to methods of propagation, whether conjugation occurs, whether they multiply by transverse or longitudinal division, sporulation, or by different ways under varying circumstances. Not a single phase in the biology of spirochaetes has been settled but the working theories are all covered in this little book.

Much work is yet to be done on questions of intermediate host, symbiosis, encystment, and, what most interests the clinician, pathogenicity. Though spirochaetes are constantly associated with relapsing fever, African tick fever, syphilis, framboesia, Vincents angina, and ulcerative granulomata in man, and a number of diseases in the lower animals the evidence as to their causal relation has yet to be placed on an incontrovertible basis in any disease. To generalize as to pathogenicity; they are associated in certain acute infections all characterized by fever, tendency to relapses and enlarged spleen. In the chronic infections the pathology is that of the granulomata. Depending on degree of viru-

lence apparently, these latter are limited to a local granuloma which remains a local lesion, or, a primary local granuloma followed by a general infection with granulomatous changes wherever the disease becomes evident. Arsenical preparations are pretty generally successful, in some degree at least, in inhibiting the

disease processes associated with these latter infections.

As there is really too little detailed knowledge on which to base an intelligent classification that given in the book is frankly presented as a makeshift. A very complete bibliography and bibliographic index closes the body of the work.

C. L. B.

## QUESTIONS CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

San Francisco, August 1st to 5th, 1911.

### OBSTETRICS.

Answer Ten (10) Questions Only.

1. What changes occur in the blood during pregnancy?
2. Give the names and measurements of the diameter of the pelvic inlet.
3. Describe fully the proper management when the head is above the superior straight and will not engage.
4. What do you understand by episiotomy and when is it called for?
5. What methods would you pursue for resuscitation of still born child?
6. How would you determine that a dead infant had been born alive?
7. Describe conception and what is its physiology.
8. Give (a) Some of the important intra-uterine causes of asphyxia in the new born; (b) The external causes.
9. Describe in detail the changes that occur in uterus following child-birth and how long a time is required for involution.
10. In breech presentations describe the different methods of delivering the after-coming head.
11. What do you understand by version? Describe the management in two different forms.
12. What are the more common causes of adherent placenta?

### PHYSIOLOGY.

Answer Ten (10) Questions Only.

1. Give proof that skeletal muscle possesses the properties of independent contractility and independent irritability.
2. Define the following physiological terms concerning the phenomena of muscle: Contracture, Tetanus, Summation, Muscle tonus, Rigor.
3. Discuss the inhibitory influence of the brain upon the spinal cord.
4. What are the causes of intravascular clotting?
5. How is the blood regenerated after hemorrhage?
6. Describe the coronary circulation during the heart beat.
7. What physiological properties does heart muscle exhibit which differ from those of skeletal muscle?
8. Define the terms intrathoracic pressure and intrapulmonic pressure.
9. What are the general properties of enzymes?
10. What is the origin of the hydrochloric acid in gastric secretion?
11. Describe the absorption of fats?
12. What are the internal secretions of the liver?

### PATHOLOGY.

Answer Eight (8) Questions and Identify Four Slides.

1. Describe the blood changes in Leukemia and what organic changes are usually found.
2. How does scar tissue differ from normal tissues and under what circumstances is it formed instead of normal structures?
3. In the study of tumors or growths what macroscopic and microscopic characteristics would lead you to decide in favor of malignancy?
4. What are usually the immediate causes of death in typhoid fever in the third week, and describe the pathologic condition you would expect to find postmortem in such a case?
5. In a severe or neglected case of diphtheria what organic lesions are usually found?
6. Describe fully the permanent changes likely to result from a neglected, long-standing case of gonorrheal infection.
7. What changes take place in the brain in Senile Dementia?
8. Describe the changes which take place in the eye in Glaucoma.
9. Describe the condition of the lungs you would expect to find in a case of death of a child two years old from pneumonia resulting from a severe neglected attack of measles.
10. Give the pathology of Addison's disease.

### CHEMISTRY AND TAXICOLOGY.

Answer Ten (10) Questions Only.

1. Define: Inorganic Chemistry; Organic Chemistry; Synthetic Chemistry; Physiological Chemistry; Pathological Chemistry; Pharmaceutical Chemistry.
2. Discuss the calcium and chlorin groups.
3. How can you distinguish tin from other metals?
4. Give the names and formulae of compounds of iron used in medicine.
5. How would you make oxygen to be administered to a patient in an emergency, when a supply was not obtainable?
6. What does the normal mixed saliva contain?
7. How would you determine the specific gravity of blood?
8. What do the quantitative tests of gastric juice reveal?
9. How do acid albumins and alkali albumins differ; how are they affected by boiling; by acids?

10. What is the chemical treatment of alimentary corrosion caused by mineral acids? Why should the stomach pump be used carefully, if at all, in such cases?
11. Give the chemical and physiological treatment of phosphorous poisoning.
12. Given a urine that reduces Fehling's solution, what poisons would you suspect?

#### ANATOMY.

Answer Ten (10) Questions Only.

1. Describe the topographical anatomy of the knee mentioning its bony landmarks and tendons.
2. What is the nerve supply of the flexor group of muscles of the forearms?
3. What are the surface points for the following: Bifurcation of the trachea; gall bladder; spleen; termination of the spinal cord; kidneys.
4. Mention from without inward the tunics of the eye and describe one of them.
5. Give location of (a) deep cardiac plexus, (b) celiac plexus, (c) aortic plexus, (d) Auerbach's plexus, (e) Meissner's plexus.
6. Describe the course of the portal vein, (b) Give its relations.
7. What is the result of total paralysis of the abducent nerve?
8. Describe the venous and arterial anastomoses about the ovary.
9. Name the structures passing through the superior opening of the thorax.
10. What is the origin of the spermatic arteries?
11. What are the surface markings of the liver?
12. Describe the pleural sac including attachments and contents.

#### BACTERIOLOGY.

Answer Ten (10) Questions Only.

1. Name the germs which usually cause Diarrhoea. How would you distinguish Asiatic Cholera from Summer Diarrhoea?
2. What causes Favus, Ringworm, Elephantiasis, Soft Chancre, Fermentation of Sugar? Give technical names.
3. Discuss, not over one page, Bacillus Diphtheriae.
4. How is Yellow Fever transmitted? Give in detail.
5. How is Tuberculin R supposed to influence Tuberculosis?
6. What is the specific test for Syphilis? Upon what principle does the test depend?
7. Describe Pasteur's method of neutralizing the poison introduced into a person by the bite of a rabid dog.
8. Describe briefly Hemolysis Bactericide, Phagocytosis, Antitoxin, Antigen.
9. Name the germs which are the cause of Conjunctivitis. Give 5.
10. How do germs produce pus?
11. Explain briefly Natural Immunity.
12. Describe Boas Oeppler bacillus. What is its significance?

#### HISTOLOGY.

Answer Only 8 Questions and Identify Four Slides.

1. Describe and locate the characteristic features which would enable you to tell a section from the skin of the forearm of an Ethiopian from a section of the skin of a Scandinavian.
2. Name the primary blastodermic layers and name—  
(a) The structures developed from the mesothelium.  
(b) The structures developed from the mesenchyme.

- (c) The structures developed from the mesameboid group of cells.
3. Describe a section of the human cornea made perpendicularly to the surface. Make drawing.
4. Describe those microscopic features which would enable you to distinguish a section of the thymus gland from a like section of a small lymph gland.
5. What structural differences are there between the malpighian corpuscles of the spleen and those of the kidneys. Make drawings.
6. Describe the differences to be observed between a transverse section of the trachea as compared with a like section from the oesophagus.
7. Describe and make a drawing of a cell that is typical of—  
(a) The cerebellum.  
(b) The cerebrum.  
(c) The retina.  
(d) The tests.  
(e) The blood.
8. What features would enable you to distinguish a section of the pancreas from a section of the parotid gland?
9. How do the fibres of the peripheral cerebro-spinal nerves differ from the nerve fibres found in the brain and spinal cord. Make drawings of transverse sections.
10. What is an erythrocyte? Describe minutely and tell how a normal cell differs in the adult human being from that found in early foetal life.
11. Identify two slides.
12. Identify two slides.

#### GYNECOLOGY.

Answer Ten (10) Questions Only.

1. How would you determine whether cancer of the cervix is operable or not?
2. Amenorrhoea, classification, causes?
3. A fibroid tumor, the size of an orange, complicating pregnancy, what would you advise?
4. How would you determine if the pelvic floor is normal, is a multipara?
5. Differential diagnosis, appendicitis and adnexal inflammation of the right side.
6. The use of the pessary in retroversion of the uterus, and the mechanism of its support?
7. Diagnosis between the menopause and pregnancy within the first four months?
8. What may be revealed by digital examination of the vagina?
9. Differential diagnosis, ovarian cyst with twisted pedicle and extra uterine pregnancy?
10. Describe a normal menstruation and state the changes that take place in the uterine mucous membrane.
11. What are the common causes of prolapsus, uteri, in an operation for its cure, what conditions must be met, and how?
12. Describe the fallopian tubes and ovaries, what are the natural supports?

#### HYGIENE.

Answer Ten (10) Questions Only.

1. Name four points to be observed in personal hygiene to prevent acquiring or imparting tuberculosis.
2. What course would you advise to be pursued to prevent tuberculosis in a child of tuberculous parents? Name four principal points.
3. What are the causes of mouth breathing and what are the deleterious results?



4. Name some special precautions a child should observe at school in order to avoid contracting disease.
5. Describe some practical steps to be pursued by a municipality for the prevention of the spread of venereal diseases.
6. What should be done in prisons to prevent the spread of tuberculosis?
7. In a residence that is heated by a hot-air furnace located in the basement, what should be done to insure that the hot air is pure?
8. What are the hygienic advantages of automobiles over horses at the home and in the city?
9. Why is candy now one of the factors in the diet of the American soldiers in the Philippines? What are the usual adulterations to be found in candy?
10. What are the dangers from the house fly? How would you prevent the breeding of flies? Describe the three of the best methods of killing flies.
11. Give observations and methods necessary in the inspection of milk.
12. What sanitary precautions should be observed in typhoid fever? Give methods in detail.
2. Describe the symptoms and course of meningitis tuberculosa.
3. Give the differential diagnosis in Angina Pectoris.
4. Describe Arthritis Deformans. For what may it be mistaken?
5. Describe the following pulses—positive venous, Corrigan, Molis, dichrotic, Bigeminus.
6. Give the aetiology and symptoms of Iritis.
7. Describe primary pernicious anaemia.
8. How would you proceed in examining a chest for incipient plumonary tuberculosis, and what would you expect to find at each step of the examination in a positive case?
9. Detail the signs and symptoms of a case of aneurysm of the transverse portion of the arch of the aorta.
10. Describe a test breakfast. Describe the methods pursued in determining the presence of (a) Free hydrochloric acid, (b) Lactic acid, (c) Boas Oppler Bacillus.
- N. B.—Quantitative statements as to composition of reagents need not be given.
11. Define (a) Hallucination, (b) Delusion, (c) Illusion and describe Paranoia.
12. What are the complications to be feared in the third week of typhoid and briefly enumerate their symptoms.

## GENERAL DIAGNOSIS.

Answer Ten (10) Questions Only.

1. Describe the technique of a lumbar puncture and of what diagnostic value is it?

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## THERAPEUTICAL HINTS

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Battle & Co. of St. Louis have just issued No. 16 of their series of charts on dislocations. This series forms a most valuable and interesting addition to any physician's library. They will be sent free of charge on application, and back numbers will also be supplied. If you have missed any of these numbers, better write Battle & Co. for them before the supply is exhausted.

The preventive treatment of rabies, as furnished by the H. K. Mulford Company consists of 25 injections of Rabies Vaccine, the strength of each injection varying in accordance with the plan of treatment adopted by the Hygienic Laboratory of the United States Marine Hospital Service.

Cords with virus of various strengths are kept in constant readiness for preparation of Rabies Vaccine to meet all emergencies.

The Vaccine is furnished in ampuls and all the physician is required to do in making the injection is to mix the Vaccine

in the ampul through a special needle, furnished with each syringe, with the physiologic salt solution contained in each syringe, then inject the patient. The technique is as simple as an ordinary hypodermatic injection.

The principal indications for Peacock's Bromides are, of course, Epilepsy, Uterine Congestion, Headache and all Neuroses. Being a safe and certain nerve sedative, it will be found a most valuable aid whenever the mental functions are overtaxed, producing insomnia. Peacock's Bromides does not compel sleep, like hypnotics, but by allaying the existing nervous excitement, whether due to mental strain, worry or anxiety, it promotes sleep in a normal manner. Unlike the effects from hypnotics, the patient awakens refreshed, with a clear head, and does not suffer from unpleasant sequelæ the following day. The overstimulation of the cerebral functions from alcohol yields promptly to the soothing action of this preparation.

While nuclein has been obtained from a variety of sources; from yeast (by Miescher, Vaughan and others); from the thyroid and thymus glands; the spleen and other glands; it is for many reasons preferable to resort to the vegetable kingdom; to be exact, to the wheat germ, as a source of nuclein for therapeutic purposes, since it has been found that nuclein derived from animal sources is apt to develop toxic properties which have never been found in vegetable nucleins.

For full information on the tritico-nucleinate of sodium write to the Abbott Alkaloidal Company, Chicago.

LOST.—A Bausch and Lomb microscope. Dr. Kress, Bradbury building, will appreciate information.

Our common sense warns against uncooked food; deference to the patient's taste guards against the administration of disagreeable drugs, and the manufacturing chemist has made it possible to give cod liver oil in palatable form. Hagee's Cordial of the Extract of Cod Liver Oil Compound is the most efficient and palatable of the cod liver oil preparations and its great value as a tissue food has won for it wide use at the hands of physicians.

Conditions peculiar to the season now with us will present themselves for your consideration and a reference to the fact that Antiphlogistine has proven of particular service in sunburn, bee stings, insect bites, sprains, bruises, etc., will offer you a ready and satisfactory dressing and is procurable in all drug stores.

In those severe cases of Dermatitis following undue exposure to the sun's ray, Antiphlogistine will quickly reduce the inflammation and the accompanying swelling and pain.

In all cases it should be applied thick and hot and well protected by ample covering.

The *International Journal of Surgery* in speaking of the Treatment of *Post Operative Intestinal Paralysis*, says: "One of the most interesting discoveries is that of Zuelzer, Dohrn and Marxer that the mucous membrane of the stomach contains a hormon, which when injected intravenously was found to stimulate intestinal peristalsis. It was later demonstrated that the same hormon can be extracted from the spleen in amounts sufficient to enable it to be utilized therapeutically. This discovery is of interest both to the physician and surgeon in the treatment of intestinal obstruction from atony of the bowel, as well as of post-operative intestinal paralysis. The results reported by Zuelzer and Saar with Hormonal, the name under which this hormon product has been introduced, have been most encouraging. Its advantage over physostigmin, which has been employed for the same purpose, is that it produces a natural peristalsis and not one of tetanic character. While symptoms of reaction such as fever and headache, have been noted from its use, these have been of slight and transient nature, and there is every reason to believe that this new physiologic product will prove of material service in medical and surgical practice.

The court having decided that the manufacture of Adrin, the Mulford brand of epinephrine (the active principle of the adrenal glands) conflicts with the product patents granted to Takamine, the H. K. Mulford Company will discontinue its manufacture in the form of solution, tablets and hypodermics, until their appeal is decided in the higher court. Other preparations which have contained the Adrin brand of epinephrine will be prepared with an amount of purified extract of adrenals equivalent to the active principle contained in the glands.

The Surgeon-General of the Army announces that preliminary examinations

for the appointments of first lieutenants in the Army Medical Corps will be held on September 5, 1911, at points to be hereafter designated.

Full information concerning these examinations can be procured upon application to the "Surgeon-General, U. S. Army, Washington, D. C." The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between 22 and 30 years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training, after graduation.

When a physician remembers that Neurosine is a well balanced formula, contains no Opium, Chloral, Morphine or Cocaine, each fluid ounce representing 40 grains each of the chemically pure bromides of potassium, sodium and ammonium; one grain of the bromide of zinc; 32 grains of the extract of lupulus; 40 minims fluid extract cascara sagrada; .075 grains each of the extracts of henbane and belladonna; .60 grains of cannabis indica; .060 grains oil of bitter almonds and five per cent. alcohol with aromatic elixirs, he will at once appreciate its excellence as an anodyne and soporific. For procuring rest during typhoid or other fevers, or soothing a woman experiencing the nervous trials

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The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

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attendant upon her peculiar monthly function, Neurosine will give the best of results. Its palatability and the ease with which it may be taken over long continued periods eminently qualifies Neurosine to take a leading role in the treatment of epilepsy and it is particularly recommended for this condition.

## CALIFORNIA HOSPITAL NURSES' ALUMNAE NOTES.

The closing entertainment for the graduating class of 1911, California Hospital, was the reception tendered this class of 1911 by the California Nurses' Alumnae Association.

This custom originated some years ago and has now come to be one of our most cherished institutions.

This year the committee in charge decided to give a banquet at the Hotel

on Mt. Washington. The evening was an ideal one and the menu most excellent, but best of all was the spirit of good-fellowship and sympathy which existed between the older girls and this large class of graduates whom we so gladly welcomed to our midst.

The address of welcome by Miss Kent, President of the Alumnae Association, the toasts which were so happily in-



roduced by the toast mistress, Miss Hilton, and responded to by the Class President, by Miss Williamson, Superintendent of the Hospital, Mrs. Durbin, Miss Simpson and others, together with class songs and social intercourses, made the evening a most enjoyable one.

Mrs. Carrie M. Stimmell, Class of '02, who has been Superintendent of the Calumet and Arizona Hospital at Bisbee, has resigned to take charge of the Copper Queen Hospital, Bisbee, Arizona, and Miss Maude Rousseau, '03, who had been assisting Mrs. Stimmell, has been made Superintendent of the Calumet and Arizona, in Mrs. Stimmell's place.

Mrs. Sarah Van Dyke, '08, has gone to Bisbee, Arizona, to assist Miss Rousseau in the Calumet and Arizona Hospital.

Miss Dora Graves, '04, Superintendent of the County Hospital at Ventura, is enjoying a month's vacation with friends in San Diego and Los Angeles.

Mr. Nurminger, '09, has resigned from the Alumnae Association and Directory and has gone north to take up some other business. We are very sorry to lose Mr. Nurminger, but we wish him success in whatever he does.

Some of our later graduates do not seem to understand that in order to be eligible to the Directory they must first join the California Hospital Nurses' Alumnae Association. We wish they might every one, feel it not only a duty but a pleasure to become members of the Alumnae Association whether they ever expect to use the Directory or not.

At the Alumnae meeting last Monday the nurses present expressed deepest sympathy for Dr. Lasher in his severe illness, and the Secretary was instructed to write him a note expressing our sympathy and our most earnest wishes for his speedy recovery.

Miss Hilda G. Humphries, '03, is to have a trip with a former patient. They left this week and will visit China,

Japan, Manila and Honolulu as well as many other interesting places during their two months' trip.

Mrs. Durbin, '04, is enjoying a well-earned vacation in the north.

Miss Simpson, '09, and her mother, and Miss Hilton, '04, are spending a month at Catalina.

Mrs. Rose Bevans Pierce, '05, died at the California Hospital after an illness of three months, on the 17th of July, 1911, and was laid to rest at her old home—Santa Ana. Mrs. Bevans, as we all loved to call her, was a faithful nurse and a true friend, and we all miss her and sympathize with her family in their bereavement.

Miss Irma Malone, '10, left this week for Idyllwild where she will have a month's vacation.

Mrs. Elizabeth Hughes Owens, '07, will move from Los Angeles soon to a ranch near Burbank. We will envy Mrs. Owens her life in the country.

Mrs. Della Ensign, '09, has returned from a delightful trip to Bear Valley, where she spent several weeks with a patient.

Miss Kitty McKay, '06, who has been in Williams, Arizona, with her sister, is spending a part of the summer at her home near Saticoy, and was visiting friends in Los Angeles recently.

Miss Ida Ambrose, '04, who went to Germany with a patient some months ago, has returned and reports a delightful trip.

Miss Nellie Kelly has just had a most pleasant vacation of three weeks at Santa Barbara.

Miss Marian Cutler, daughter of Mrs. Emma L. Cutler, '02, is recovering from

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an operation for appendicitis, at the California Hospital. We congratulate Miss Cutler on her good recovery.

At the recent election of officers of the Los Angeles County Nurses' Association, Miss Eva Johnson, '03, was elected President and Miss Alma Wrigly of Pasadena, Secretary-Treasurer. Miss Johnson is the first California nurse to be president of the Association. Our Alumnae Association had a Vice-President, Miss Hilton, and one or two representatives among the Councillors for several years. The California Hospital Nurses' Alumnae Association has always been well represented in the County Association, as we usually had from thirty to forty members, and this is as it should be, except that *every one* of our graduates should belong to the County and State Associations.

Miss Rachel Santa Maria, '05, was married recently to Mr. Sauer, a well known business man. Mr. and Mrs. Sauer have apartments at the Ivins on 10th and Figueroa streets.

At the last meeting of the Alumnae Association a committee on revision of the constitution was appointed. All members are earnestly requested to read over the old constitution and report to the committee any changes which may occur to them.

Miss Isabel Gage, '05, who had to stop working because of rheumatism, writes that she is very much better. She is spending some weeks at the beach recuperating. We hope Miss Gage will soon be able to be with us again.

Later—Miss Gage is not so well and has just come into the California Hospital for treatment.



## EL REPOSO SANATORIUM

**SIERRA MADRE, CALIFORNIA, RANCH and HEALTH RESORT.** A Hundred Acres in the Sierra Madre Foothills. Altitude 1500 Feet. Mountain Spring Water. Tent Cottages. Mission Bungalows, with bath and electric lights. Furnished bungalows for Housekeeping for accommodation of families. Club House. Resident Physician, competent Nurses, moderate prices. Hourly electric car service from Los Angeles. Home Phone Exchange 1, Sunset Main 6212, Sierra Madre. City Office, 114 Coulter Building. Home Phone F 2660, Sunset B'dway 464. Consultant, Joseph G. Condit, M. D. Pasadena, California.



### GENIUS AND HEREDITY.\*

It is interesting to note that, taking an estimate of the population of the British Isles throughout the historic ages, the editors of the Dictionary of National Biography arrive at much the same conclusion as Sir Francis Galton—namely, that about two hundred persons in every million of the adult population have attained sufficient eminence to be enshrined in these volumes.

We can only secure a constant succession of the various types of ability, and we can only make certain that that ability should have all "the favouring circumstances of education, position, and family connexion," by some application of the hereditary principle.

Any social phenomena which are as widely spread and as deeply ingrained as class distinction and class association must be playing some useful, probably some essential part, in the biological development of society, and that they are probably absolute necessities for successful and healthy social evolution. Laboriously we subdivide our animals into classes and cherish the distinctions among them; dogs that hunt by sight and dogs that hunt by scent, horses for speed and horses for strength, sheep for mutton and sheep for wool. All these efforts on our part are attempts to make available to the utmost degree the qualities latent in the canine, equine, or bovine race. We cannot get all the best out of any one species without specialization and inbreeding.

And on this analogy it appears probable that the class distinctions and segregation of type which exist among us and in all civilized races have a real evolutionary meaning—that they appear and grow with civilization, multiplying as the needs of man increases, crystallizing out as the fields of his activity separate progressively from each other—that they also are approved methods for securing

specialization and development in the inherent abilities of mankind through social association and its corollary of like-to-like mating. Whether it would be possible or even desirable to join families of constant emotional and artistic gifts is a very difficult problem. We may well question whether the balance of such wayward and elusive talents and perceptions be not too subtle for any systematic creation. But it is clear that, by the habit of association and the custom of intermarriage among families of similar type, social conditions can be established and maintained by which certain sorts of ability, depending on a combination of character and intellect, can be brought into existence and made available for national purposes in constant and regular succession.

### THE HYDROPHOBIA SKUNK.

The spotted skunk, or hydrophobia skunk, as it is commonly called, is most abundant in the extreme southern end of the peninsula of Lower California where it is looked upon with fear and abhorrence, owing to its habit of biting people in the face while they are sleeping on the ground and the reputed commonly-resulting death of the victim by rabies. The fear of these animals extends throughout the peninsula, and we were warned of the danger from them when we were preparing for the trip.

When we were at the village of Cape San Lucas, the first of January, one of the villagers brought to me the body of one of the skunks, which had entered the open door of his house the preceding night and bitten his little girl through the lip. The child was brought to me the next day and the two marks where the skunk's canines had pierced the lip were already healing without inflammation. I have no further knowledge of the outcome in this case, but was told of the death of one of the men of the village the previous year from a similar bite.—*The Los Angeles Daily Times*.

\*Abstracted from the Nineteenth Century, May, 1911.



# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, SEPTEMBER, 1911.

No. 9

Editor,

DR. WALTER LINDLEY.

Associate Editors,

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DR. GEO. L. COLE, DR. W. JARVIS BARLOW, DR. F. M. POTTENGER  
and DR. WILLIAM A. EDWARDS.

## SURGICAL CLINIC.\*

CONDUCTED BY DR. M. L. MOORE AND PARTICIPATED IN BY DRS. M. L. MOORE,  
CHAS. L. ALLEN, GRANT G. SPEER, E. L. LEONARD, W. W. BECKETT,  
H. G. MARX MILLER AND W. L. HUGGINS.

This patient I have looked after for a number of years and delivered her of a child eight years ago. She complained of pain on the left side. On examination I felt a small mass which felt like a cystic ovary. The pain increased as time went on and finally I advised operation. On opening the abdomen I found the peritoneum and intestines involved in a metastases of the papilloma and on the left side I found a tumor I did not feel on examination. On the opposite side was a lutean cyst. I removed a cyst the size of my fist and a section of the omentum. The case was so grave that I deemed it best to close the abdomen without doing anything more. She grew better, however, and I operated again and removed this papilloma from the opposite side. The bladder was probably as thick as my finger, but after separating it I found the papillomatous tissue all over the uterus. I removed this and the lutean cyst and

the patient made a perfect recovery and left the hospital in about two weeks. She was perfectly comfortable from that time. There was no accumulation of fluid and she continued perfectly happy and comfortable until about four weeks ago, when she complained of pain on the side from which the lutean cyst was removed. I found a mass which increased in size and I opened the abdomen eight days ago. I found that all this papillomatous tissue which had involved the intestines and the parietal peritoneum had disappeared, and now the condition was in the broad ligament on the side of the lutean cyst. This had evidently extended into the parametrium from the original cyst. I did a supra-vaginal hysterectomy, removing all of the diseased tissue, and I believe this patient will get well. This is the second case I have seen. In the first case, it was a papilloma of the ovary which had not ruptured. That patient is well today.

\*Before the Los Angeles County Medical Association, June 2, 1911.

On reviewing the literature, I find that a Chicago writer has reported some twenty cases, and the history shows that so long as the parent papilloma exists it furnishes material for other papillomata, but as soon as the pelvis is free there is nothing to feed the tissues; and it seems to me that this patient ought to make a perfect recovery.

The next specimen is that of a tubal pregnancy, and is of interest from the fact that it was found in the ampullar portion of the tube and because the rupture was so early. It was a pregnancy of about three weeks. This woman has had two children, she is about 30 years old. She had had a full menstruation, then passed the next menstruation about three days when she was seized with a sudden, colicky pain upon arising, so severe that she could not wait for me and a neighboring physician was called in who gave her a hypodermic. When my associate, Dr. White, reached her, she was in shock. I saw her later in the day. There was then a rigid abdomen, normal pulse and temperature, no shock, and outside of the pain and board-like condition of the abdomen, she was fairly comfortable. I was sure something serious had happened but she was not taken to the hospital until the next day. Then we examined her under an anesthetic. Per vaginam I could not make out anything. Per rectum I could feel on the right side a small mass about the size of an orange. I could not make out that there was a ruptured tubal pregnancy from the fact that there was nothing in the cul-de-sac. The leucocyte count was 11,000 and the number of red cells diminished. I decided to operate and when we opened the abdomen the free blood in the belly showed what had happened. I immediately carried my hand down and found what I took to be an ovary, but upon lifting it up I found this specimen. It was removed and the patient made a very nice recovery. The inter-

esting feature is the early rupture, for the early rupture usually takes place in the isthmal and not the ampullar portion. When it occurs in the ampullar portion it frequently ruptures into the abdominal cavity. In this case there were no tumors nor any previous history that could account for the condition. We recognize two varieties, the columnar and the intercolumnar attachment, and this was intercolumnar. The villi eating away, it found its way into the muscular portion, it resulted in a hemorrhage and there being nothing but the peritoneal lining to prevent, this rupture took place. In this case the woman had no indications of pregnancy nor were the symptoms of rupture sufficiently distinct to make it out by abdominal examination.

#### SPECIMEN OF VERY YOUNG FETUS.

BY DR. CHAS. L. ALLEN.

The clinical history does not present anything interesting, but this is a specimen of very young fetus. On the 3rd of March last I was called to see a lady of 38. She had menstruated last about the 28th of December. She had had a profuse hemorrhage and they stated that something had passed which they had preserved for me and I found it to be this fetus. The patient made an uneventful recovery. I did not say that this was a 21-day fetus, but I did say that it was just about the size of a fetus of 21 days. According to this lady's statement she must have become pregnant one month, or a little more, previous.

#### Hemorrhagic Pancreatitis.

BY DR. GRANT G. SPEER.

Hemorrhagic Pancreatitis, by Grant Gould Speer, M.D.: In looking over the literature of pancreatitis, it quickly became obvious that each one who had encountered a case attempted to write an exhaustive paper, and nearly all referred to one or two who had had a wider ob-

servation. The literature is profuse and any one of the better papers have in it all that the others contain, and it is not the purpose to here repeat what has been so thoroughly gone into. But so far as I read I did not encounter a case the counterpart of the following of which I shall give you only the clinical practice. Dr. E. L. Leonard has kindly promised to speak of it pathologically.

Mrs. L. D., age 52, married, no children and never pregnant. Family history unknown. Since and for some indefinite period before the San Francisco disaster, through which she suffered, there is a history of abdominal attacks, some of which have been designated as peritonitis, but could elicit no previous diagnosis of gall-stones nor appendicitis. The worst of these attacks apparently followed an injury to the left side in which several lower ribs were broken and the nervous system much shocked. To this accident the patient was inclined to ascribe the severity of the attacks.

On Saturday, January the 15th, the patient had terrific pain. I was called on Sunday, to find her in much pain, increased by paroxysms, ascribing that as most intense in the region of the splenic flexure of the colon. The whole abdomen was extremely tender and rigid to the touch. If more so in one place than another, it was well up on the left side. The bowels had moved on Saturday, but on Sunday there was complete obstipation. The face was drawn and pale, the pulse high, 125 to 130, the temperature normal, occasionally subnormal and once 99° F., skin clammy. The general condition analogous to surgical shock. Before night eructations of bile began to occur. This condition had not materially changed before Tuesday morning when the tenderness of the abdomen and signs of shock began to disappear. Color reappeared in the face, the pulse decreased to 92, and while the bowels remained sore, the paroxysms of pain did

not occur and the tenderness was not apparent except on rather firm pressure. The eructations varied from a thin mixture of bile to a green mass the consistency of soft fecal matter; and considering that much of this must have come from the upper bowel, it was remarkably free from odor.

At first an attempt was made to control the pain with a hypodermic of morphine followed by suppositories of opium and belladonna which was only partially successful; but a hypodermic of morphine, hyosine and cactin not only gave her a good, refreshing night's sleep but caused her to cease vomiting while under its influence. Subgallato of bismuth and powdered peptenzine given to quiet the irritable stomach rather increased than lessened the eructations. A large dose of castor oil given at one time was retained about six hours, and some tea was retained perhaps two hours, and citrate of magnesia given after calomel was not immediately rejected. No attempt during this time was made to wash out the stomach, but hot water was given at first which was almost immediately rejected. The patient was most tractable, and a minimum amount of fluids and almost no nourishment was attempted during the five days of her illness. Simultaneously with the attempts to relieve pain an effort was made to get the bowels to move. This was persistently kept up until the eve before the operation. First a high injection of pure glycerin was attempted, this was followed by others of soap and water and soap and water and molasses. An ounce of castor oil was given at one time and rejected in six hours as related. Four doses of one drop each of croton oil were given on different times. Two grains of calomel and soda followed by citrate of magnesia appeared to have no result, good or bad. Some of the emetics were given by the attending physician and some by a



"practical" nurse assisted by the husband. After one of these he reported that the tube came away solid nearly its whole length. I then gave a high enema of pure oil without results. Up to Wednesday the only bowel movements were a small one of green, dry fecal matter with apparently undigested particles which was washed away in enemata, and two very small movements that came from the lower bowel as usual in complete obstipation. On Wednesday evening, with a protoscope inserted to hold the sphincter out of the way, no fecal impaction could be seen the length of the instrument. With the legs well flexed with leg holders the rectal tube was inserted at least two feet and large quantities of warm soap and water were used to wash out the bowel. Flakes and pieces were washed away sufficient to darken the water, but could not be said to be sufficient for an ordinary bowel movement. There was but little odor and this was distinctly fecal. The patient thought at times she had passed gas out of the rectum, and during this enema she could force the collected water out with a great sputtering force, but from the condition of the bowel afterward ascertained it is highly improbable that even gas passed from above, and in bowel operations even this classic symptom of recovery must be accepted with reservation. The lower bowel was now considered thoroughly cleansed out and while the patient's general condition was improved, the eructations and all the other symptoms of complete obstruction persisted. She was told that she would probably die in from two to ten days from exhaustion from the vomiting, and consented to an exploratory operation for the obstruction. At one o'clock on Thursday an incision was made through the edge of the right rectus muscle. The thickness of the abdominal fat made the exploration exceedingly difficult. The omentum was large and thick with fat

that added to the difficulty. Scattered over the peritoneum were a large number of those minute calcarious pearl-like bodies that we have been taught to call miliary tubercles. There was very little abdominal fluid. The one object that presented itself forcibly was the calcium which was filled with gas and the walls were very thin, and which with the appendix was dark and almost gangrenous. The colon improved from this region up the ascending colon and the length of the small intestine. The blood vessels appeared to be still active. The appendix was removed in the usual way, hot sponges applied, and then the bowel was returned and later withdrawn when the colon was found to have improved, and it was allowed to remain. During the operation the rest of the abdominal cavity was explored by palpation or inspection. The pelvic organs were small with no appearance of inflammation nor adhesions. The rectum and sigmoid appeared normal and empty. The splenic flexure was difficult to reach. Under the stomach were a string of indurations, bead-like to the touch. It was thought the gall bladder was palpated, but it is probable that a lobe of the omentum was mistaken for it. The ascending colon looked paretic, and enlarged gradually toward the cecum. The small intestines were slightly darkened but apparently in almost normal condition. The patient had been given a full-sized tablet of morphine hyoscine and cactin before being removed to the hospital, and again at half-past eleven, which would have been a half hour before the operation, but through an unavoidable delay it was an hour and a half. About three fluid drams of chloroform were given. The patient was returned to bed apparently in good condition, very little shock, pulse good at 104, and soon regained consciousness. But as soon as consciousness returned the vomiting commenced. On account of the severity of the operation

adrenilin and salt solution per rectum was given at once, and soon after under the breast. Condition remained good until seven o'clock when she collapsed and died at two o'clock in the morning.

Post-mortem was made about 8:30 in the evening after the undertaker had partly prepared the body. In addition to the conditions observed at the operation the stomach was empty, the small bowels appeared to contain considerable soft matter which undoubtedly supplied the vomitus, the cecum had collapsed from a post-mortem puncture by the undertaker. The bead-like bodies under the stomach proved to be the transverse colon much contracted and firmly holding in its small lumen fecal matter both in sheep-like lump interspersed with a dry plaster condition; this became more packed and frozen in the splenic flexure where the rectal tube encountered but was unable to wash away this mass. Deep-seated in the mesentery were flattened yellow nodules such as noted on the peritoneum at the operation, but larger. The gall-bladder was shrunken and when perforated a small amount of pus-like fluid exuded. It contained two fairly large gall stones and several grains of sand. The common duct was not explored. The pancreas was swollen and the head embraced the duodenum. On removal and section it was found to be hemorrhagic. The mass of blood was more marked in the body than the head or bowel.

#### DISCUSSION. ACUTE PANCREATITIS.

Dr. E. L. Leonard:—These cases are extremely rare but are more common in corpulent individuals and more common in men than in women. The length of life after the onset of the disease is usually about four days. It has been demonstrated beyond question that the introduction of bile into the duct of Wirsung in experimental animals will

produce this condition and cause death. The bacillus of Friedlander and bacillus pyogenes will produce the condition. The toxine, whatever it is, destroys the ducts of the gland causing hemorrhage throughout the pancreas. The little tubercles the doctor mentions in this case must have been fat necroses, always seen in any disease of the pancreas. This patient also had gall-stones but the common duct was not explored. A theory of the cause of the condition is that because of reversed peristalsis either gastric juice or bile flows back into the duct of Wirsung causing this disease. This is a very rare specimen. You will see the grayish masses that are the normal pancreas, but the mass of the specimen is hemorrhagic. You will notice the little areas of fat that are spread all over the mass. I believe they must be areas of fat necrosis.

#### EXTRA-UTERINE PREGNANCY.

DR. W. W. BECKETT.

This is an interesting specimen inasmuch as I operated on the patient four or five months after pregnancy took place. She gave a history of miscarriage four months before I operated upon her and a very good history of an infected tube, but I had no idea she had had an extra-uterine pregnancy, but I found this mass lying near the uterus. During the time that she thought she had a miscarriage, going over one period and up to about the time of the next, the product of conception evidently died and remained in the tube without rupturing. The same day I operated on another patient who was bleeding at the time I operated and who was in collapse. That was a two months' gestation. This specimen was near the uterus. In the other, tubal pregnancy had taken place at almost the same place but had ruptured at the free margin and within the tube was a little fetus. The woman was in collapse, she was still bleeding, the rupture having



occurred in the night, and I operated at 9 in the morning. She was very cold and clammy, but I had seen a patient in such a condition and we had waited and she died in that condition, but I have never seen but one death where operation was done, and in that case the woman was virtually dying when I operated. It is remarkable in that I had two such cases in one day, pregnancy having taken place at the same point in the tube. I think it is a very easy matter to stop the bleeding in one of these cases of ruptured tube. If you catch the top of the uterus and pull it up you will be able to reach down and catch utero-ovarian artery at the side of the uterus, and then you can take your time to clear out the cavity and clean out all the blood. If you have reason to believe these patients are bleeding, operate on them at once, for you cannot do them any harm and you cannot gain anything by waiting. It is different if the rupture takes place in the broad ligament. There they will bleed only so much and then the tension will stop the bleeding. But I would always operate on a patient that I saw early. It is not every case of rupture of the tube that has shock, but if there is very much hemorrhage there will be shock. There are a number of conditions that render it somewhat difficult to make a diagnosis of extra-uterine pregnancy. At the college is a little lithopedium I removed sixteen years ago after the woman had aborted at three months. The physician who saw her thought it was a miscarriage and he tried to tide her over, but she went from bad to worse and went to the hospital and the fetus was removed. She was in the hospital about three months and finally recovered. But the emptying of the uterus did not seem to do very much good and she undoubtedly had a tubal pregnancy at the time she had a normal pregnancy. It was the rupture of the tube that caused the trouble rather than the normal preg-

nancy. But it is not always easy to make the diagnosis. In a salpingitis, for instance, you may have the tumor and some disturbance, but the mass develops more slowly. Some of the patients awake with a severe pain in the side as the first symptom. One patient had eaten a tamale and her physician thought she had colic and gave her a hypodermic. But it is usually easy to make a diagnosis of tubal pregnancy in classical cases. The border-line cases are sometimes very difficult to diagnose. I think of all the conditions we have to deal with there is nothing that requires greater judgment, greater skill in diagnosis and greater skill in handling the case or that is fraught with more important results to the patients than extra-uterine pregnancy.

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#### **Gall-Stones. Tumor of the Bladder.**

BY DR. H. G. MARXMILLER.

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#### **POST-OPERATIVE EMPYEMA OF GALL BLADDER.**

Mrs. Robert G. of Waterloo, Iowa, was referred to me for examination October 24th, 1910, and gave the following history: Age 62 years, married, a New Englander by birth, of Irish extraction, with a history of gall-stones for the past 22 years. Her symptoms of chronic stomach trouble becoming worse and suffering from repeated attacks of colic she was referred to the Rochester Clinic and was there operated upon by Dr. William Mayo about September 17th, 1910; at that time a large number of stones were removed and drainage kept up for one week, when the fistulae was permitted to close and the patient dismissed apparently well. She later came to Los Angeles to recuperate, but on the way out her old symptoms returned, and continued increasing in severity until her discomfort was marked.

She was referred to me shortly after her arrival, and we found her suffering



much pain, with tenderness over the old scar, accompanied with bilious vomiting, anxious fascies, chills and fever. From her previous history, coupled with the existing symptoms, a diagnosis of Empyema of the Gall Bladder was made with a possible obstruction in the cystic duct. The patient was removed to the Pacific Hospital, the gall bladder opened and a pint of thick foul-smelling pus was removed, and a small stone about the size of a pea was removed from the cystic duct. Catheterizing the ducts after thorough flushing and finding no further obstruction, drainage was instituted and carried on until clear sterile bile flowed through the tube, being about two weeks' time. The fistulae then closed and the patient made an uneventful recovery.

#### ECTOPIC PREGNANCY.

BY DR. W. L. HUGGINS.

The first specimen is an extra-uterine pregnancy that ruptured into the broad

ligament. The patient, 38 years old, had not been pregnant for twelve years. She fainted on the street and was taken home. I saw the patient and on bimanual examination made a diagnosis of extra-uterine pregnancy, ovarian cyst or pyosalpinx. When I operated I found this three months' fetus. The patient made a slow but perfect recovery.

#### Second specimen.

This patient had missed one menstrual period, visited a professional abortionist and was told that she was all right. She passed the next menstrual period and was taken very sick in the night. I saw her next morning, and we operated just at the point of rupture. This patient had a temperature of 101°, which was accounted for by a pus ovary. She was 24 years old and this was her first pregnancy. The other tube and ovary were perfectly normal.

## RELATIVE CARDIAC DULLNESS AS COMPARED WITH ORTHODIAGRAPHIC FINDINGS.

BY JOSEPH LYNN CHOATE, M.D., LOS ANGELES, CALIFORNIA.

There exists great variation among clinicians in outlining what is known as the relative cardiac dullness. This of course should represent the actual size of the heart and by comparison with our newer fleuroscopic methods we can determine whether or not we have correctly outlined this area. Not only do we notice at the bedside that clinicians get widely varying results, particularly as concerns the right cardiac border, but our text-books and works on physical diagnosis give greatly varying lines as to the extent of the heart to the right.

As regards the absolute cardiac dullness, that portion which is uncovered by lung, we find more agreement since all admit that this area should be outlined

by the use of light or feeble percussion, and by the use of this method almost all agree in finding the right border of this dullness near the left edge of the sternum, the upper border at the fourth rib and the left border at or a little inside the point of maximum impulse. But as regards the methods of percussing out the relative cardiac dullness, that area which represents the actual size of the heart, there exists wide differences in opinion as to the method most suitable for use and naturally we find great variation in the outlines obtained. The ordinary method in use is that of forcible and medium forcible percussion but from time to time there have been introduced other methods which in each case the

author has claimed gives a more accurate cardiac outline.

Dr. Barker in his Jerome Cochran lecture, 1909, mentions those methods which are in most general use as, (1) the methods of threshold-percussion, (2) that of palpetory percussion, (3) that of percussion with lateral damping (Schott), and (4) that of Moritz.

Naturally there was little agreement among the findings of the users of these various methods. Over the same heart there would often exist a variation of 2 c.m. and so long as we have to depend upon percussion alone as a means of projecting the cardiac area onto the chest wall there was little chance of coming to a uniform agreement.

In 1900 Professor Moritz of the University of Strassburg devised an apparatus which he called the orthodiagraph. This apparatus was so constructed that a series of vertical fleuroscopic rays could be projected through the body in such a manner that a diagram of a series of points representing the outline areas of the heart could be obtained. Since absolutely all the divergent rays were cut out by means of diaphragms only the vertical ones come through, thus giving a plate known as an orthodiagram, showing the exact size of the heart.

Two years later at the Congress of Internal Medicine held at Munich, Dr. Moritz read a paper stating the results which he had obtained by the use of his new apparatus—of the cases which he had thus far examined he had found rather striking results. Instead of the right border of the heart coming to the right sternal border as was then generally taught he found by the orthodiagraph that in adult healthy men the heart extended on an average of 4.4 c.m. to the right and 8.5 c.m. to the left of the mid-sternal line. In adult healthy women he found the right cardiac border on an average of 1 c.m. farther in towards the mid-line than with men.

These results were in such contrast to the measurements usually found that he undertook to try out the various methods of percussion and see which came most closely to agreeing with his orthodiagraphic findings. So in 1906 he published in the *Archiv. für, Klin Med.*, Vol. 88, a new method of percussion, or rather a combination of methods used before, wall a heart area which corresponded in a large percentage of cases to his orthodiagraphic findings.

Very enthusiastic articles have appeared giving results obtained by these various other methods of percussion, but, as a rule, they have not been confirmed by comparison with orthodiagrams. By the Moritz method of percussion one obtains the cardiac border farther to the right and as has been shown this is the border where the greatest variation exists among clinicians—its outline usually being found far too close to the mid-sternal line.

The method as practiced by Moritz is that of heavy percussion for the right cardiac border and extremely light percussion for obtaining the left border. In outlining the right border heavy ordinary finger-finger percussion is used. The fleximeter finger is pressed firmly against the chest wall, but instead of very short, rather long-drawn-out strokes are made with the "hammer-finger." By this means a more appreciable depth effect of percussion stroke is obtained. In outlining this border we proceed from the right mamillary line in towards the sternum at about the level of the fourth interspace. The fleximeter finger is held parallel to the right cardiac border to be obtained and gradually moved in towards the sternal border until the first distinct dulling of the note is observed which when joined show quite accurately the cardiac border. When the first dulling of the note is not distinctly heard it may be made more distinct by having the patient hold a deep expiration while the percussing is done.

In percussing out the left border, however, the procedure is quite different and we cannot make use of the time during forced expiration for the apex and neighboring borders are considerably changed upwards and outwards during this procedure. Instead of the heavy percussion as used in determining the right cardiac border we use here moderate or extremely feeble percussion, the character depending upon the extent of the heart to the left. The farther out the heart extends to the left the feebler must be the percussion stroke. The nearer the heart border is to the mid-line the stronger may be the percussion note simulating that of the right border. Where there is a visible point of maximum impulse this is usually taken as a landmark, for the cardiac border is usually found somewhere close to this point, but when there is no visible point of maximum impulse, we start well out in the anterior axillary line and proceeding as on the right side with the pleximeter finger parallel to the mid-sternal line percuss gradually inward with very light percussion until we obtain a distinct dulling of the note. On this side, however, the pleximeter finger is not pressed so firmly against the chest wall for pressure of the pleximeter gives the same findings as heavy percussion while even with heavy strokes of the hammer finger we get a superficial percussion note if the pleximeter is held loosely against the chest wall.

The upper right and left borders are both outlined with heavy percussion similar to that used for the right cardiac border. After obtaining a series of points in this manner they are then joined by lines and we have a projection of the area of the heart upon the chest wall which according to the comparisons made by Moritz corresponds almost exactly with the orthodiagraphic picture which he obtained immediately after percussing out the heart by this method.

To estimate what strength percussion to use on the left border one must arrive at a rough opinion as to the condition of the heart. When for example, the heart is greatly hypertrophied and extends far out to the left we must use much feebler percussion than in a case where the heart border is along the anterior horizontal chest wall. When we percuss with any degree of strength out around the curvature of the lateral chest wall we obtain an increased projection picture and thus a false appreciation of the real size of the heart. The heavy vibrations over this curved area do not extend vertically downwards but some proceed mesialward and strike on the outer side of the heart. By very feeble percussion this is not so likely to occur and we obtain the border farther in to the right where by the orthodiagraph we usually find it.

Because of these relations to the chest wall there is established a rule that the further out the heart extends in the chest curvature and follows more closely the slope of the chest wall so much feebler is the percussion to be. But when the apex is found in the region of the horizontal half of the anterior surface of the chest wall so much harder is the percussion stroke to be just as in outlining the right cardiac border.

During the semester of 1909 spent in the medical clinics of Professor Moritz the writer became interested in this method of percussion and astonished at the variation from the area usually outlined in our clinics as the normal heart dullness. It is believed that the results given are quite accurate for in most cases the orthodiagrams were made immediately after mapping out the cardiac dullness as to give no interval during which the heart could have changed.

In the present paper is given the conclusions from observations on 120 cases from the medical wards of the Johns Hopkins Hospital. Among these cases were sixty-one men, forty-eight with nor-



mal, thirteen with pathological hearts. Thirty women, fifteen with normal, fifteen with pathological hearts, and seventeen children—three pathological.

The first observations published by Moritz were on a series of one hundred and twenty normal cases each finding being controlled by the orthodiagraph. His results allowing a variation of 0.5 c.m., were as follows:

Right border correct, 86%.

Left border correct, 70%.

Right to left border both correct, 50%.

Both wrong, 12%.

These results were then confirmed by Dr. Hans Dietlen on a series of two hundred and thirty-one cases in the clinics at Greifswald and Giessen. Dietlen had formerly worked with Moritz on the orthodiagraph so it is reasonable to suppose their technique was much the same. Dietlen's series contained many pathological cases which, however, were not percussed out so accurately as the normal hearts. Allowing a variation of 0.5 c.m. as in the investigations of Moritz his correct findings were as follows:

	Measurement	
	to right.	—to left.
135 men, 15-70 yrs..	87%	72%
71 women, 15-60 yrs.	86%	69%
25 children, 3-14 yrs.	96%	92%

The conclusions of Moritz were further confirmed by the work of de la Camp and of Treupel. The former worked up a series of cases using a method of percussion practically identical with that advocated by Moritz. It was simply finger-finger percussion, with heavy staccato-like strokes upon the pleximeter finger which was firmly pressed against the chest wall. Controlling his percussion findings by means of the orthodiagraph, de la Camp found that, allowing a variation of 0.75 c.m., he was correct in more than three-quarters of the cases (85%). The latter observer, Treupel, working with Engel, one of his assistants, also under-

took to test the method which had yielded such excellent results in the hands of its originator. The result of his work was also a full confirmation in all particulars of the claims of Moritz, as Treupel himself says:

“Wir können da den Angaben Moritz in Allen Punkten beipflichten.”

In 70 per cent. of all the cases which Treupel investigated both the right and left borders of the relative cardiac dullness as made out by percussion agree to within 1 c.m. with those obtained by the orthodiagraph. In all these orthodiagraphic observations the general conclusion is that the extent of the normal heart in a well developed adult is about the same as stated by Moritz—4.4 c.m. to the right and 8.5 c.m. to the left. In women the right heart border being about 1 c.m. closer in on the right. I have not been able to get such good results on the cases percussed out by this method having an average for the sixty men (16-67 years) of 3.6 c.m. to the right and 9.3 to the left.

The analysis of the tables of individual case shows:

I. In normal males the average measurement to the right was but 3.6 as compared to an average of 4.4 as found by Moritz and subsequent investigators. This may be explained by the large number of boys just over the 15 years of age.

II. The measurements of normal male hearts was 9.4 to the left, which is .9 further out than the averages found by the above investigators.

III. The average measurement of the women with normal hearts was 3.0 as compared to 3.4 by the above.

IV. The average measurement of the children with normal hearts was 2.9 to the right and 6.3 to the left. We have no other averages to compare these with but according to Dietlen they are by far the most easily outlined with accuracy.

This he explains by the fact that their hearts are relatively larger and uncovered by lung as compared to adults also due to the elastic chest wall.

V. By comparison with records in my case histories of hearts percussed out by the other methods of percussion there is

shown that by the Moritz method, the right border of the heart is found to be farther away from the mid-line by a small but constant difference and the left border is found to be a little further in towards the mid-sternal line.

624 Trust and Savings Bldg.

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## ANDREAS VESALIUS.\*

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THE REFORMER OF ANATOMY, BY WALTER LINDLEY, M.D., LOS ANGELES.

Andreas Vesalius, the Reformer of Anatomy, died on an island in the Ionian Sea in 1564, the year that Shakespeare was born, while William Harvey made his first demonstration of the circulation of the blood in Saint Bartholomew's Hospital in 1616, the year that Shakespeare died. Writers have frequently expressed wonder at the great amount of anatomical and physiological knowledge to be found in Shakespeare's dramatic works, but the fact is he lived during the time of the most active anatomical research; and literary and scientific publications were teeming with new discoveries. Like Maeterlinck—the modern Shakespeare—Vesalius was a native of Belgium. He had an ancestry of medical scholars. The family name was Vesalius from the town of Wesel, and three Weasels are in the Vesalian coat of arms.

Andreas's great, great-grandfather, Peter, wrote a treatise on the works of Avicenna, the Arabian philosopher and physician who wrote the Canon Medicinal, 1025 A. D. Peter's son John was physician to Mary of Burgundy, the wife of Maximilian the First, and professor of medicine in the University of Louvain. Andreas's grandfather, Eberhard, was noted for his writings on

Hippocrates and was also an able mathematician. The father of our Andreas was also Andreas by name. He was apothecary to Charles the Fifth and Margaret of Austria and remained in the imperial service until the day of his death, in 1546.

As a boy our Andreas learned to swim by the aid of bladders filled with air and noted their elasticity. He soon began the practical study of anatomy by dissecting mice, moles, rats, dogs and cats. He became especially proficient in the Greek and Latin languages. When seventeen he went to Paris to study medicine, where, at that time, Jacobus Sylvius was the most popular medical teacher. Young Vesalius was looking for opportunities to dissect the human body. He haunted the cemeteries for materials for a skeleton, and one night he and some fellow students were attacked by fierce dogs. He became master of the osseous system and was able when blindfolded to name and describe any part of the skeleton which was placed in his hands. One night he climbed a gallows where a noted criminal had been executed by being slowly roasted. The birds had picked the bones clean, but the tendons held the joints to-

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\*Andreas Vesalius, the Reformer of Anatomy. By James Moore Ball, M.D. Saint Louis: Medical Science Press. MDLCCCX. Do you love a beautiful book? Do you love history? Do you love your profession? Then get a copy of this life of Andreas Vesalius by Dr. Ball and you will prize it as highly as any book you have in your library.

gether. One finger, a patella, and a foot were missing. To supply these missing bones he climbed another gallows and thus had a human skeleton complete. He became the most noted anatomical and surgical teacher of his day.

To give the reader an idea of his ability as a teacher, let us follow one of Vesalius's public courses in anatomy. It is the month of December, in the year 1537. Vesalius is twenty-three years old. The report has spread that the young Belgian professor will begin his course. Long before the hour set for the lecture, every available seat has been taken and many persons are standing. An audience comprising the professors of the university, the students of medicine, officials of the city of Padua, and learned persons of all ranks, including members of the clergy, numbering more than five hundred persons, has assembled to do honor to the professor of anatomy.

Vesalius comes into the arena and walks to the table, which is closely surrounded by his auditors. He wastes no time; after a few preliminary remarks on the importance of anatomy and the methods of acquiring a knowledge of this science, he launches into the practical demonstration. After rapidly pointing out the divisions of the body, and demonstrating the skin, joints, cartilages, ligaments, glands, fat and muscles, he passes to the more complex parts, all of which are shown upon the skinned body of a dog or of a lamb, in order to conserve the human material. Now the human cadaver is placed on the table; all eyes are turned upon it, for such a demonstration occurs only at long intervals. Vesalius speaks first of the difference in the structure of joints at different ages and in differ-

ent sexes, illustrating his remarks by means of drawings and by an abundant supply of bones of man and of the lower animals.

Now comes the dissection. This is made rapidly and in regular order. Its course depends upon the amount of material at hand; if the professor resorts to two bodies, as in the year 1538, the demonstration is handled in grand style. Vesalius uses the first body for a comprehensive examination of the muscles, ligaments and viscera; whilst the second cadaver is devoted to the relations of the veins, arteries, nerves and viscera. The text of the *Fabrica* is written according to this plan of public dissection.

At one time Vesalius attempted to teach the whole of anatomy on one cadaver. In this event, osteology was followed by the dissection of the abdominal muscles layer by layer, the demonstration closing with an examination of the entire contents of the abdomen. The pelvic organs were reached by incision and separation of the symphysis pubis. If the cadaver was that of a female, the dissection began with the mammary glands and then passed to the inferior venter. In pregnancy the foetal membranes were removed intact, and were placed in a vessel filled with water. The foetus was opened and its anastomosing vessels were found. For demonstrating the cotyledons, the uterus of a sheep or goat was used. After the thorax had been raised by means of a log or brick, Vesalius passed to the face and the anterior part of the neck, freely exposing the muscles on one side and the vessels and nerves on the other. Then followed the unilateral preparation of the muscles of the shoulder and back, then those of the mouth, which were approached by means of



division of the lower jaw; and, finally, the pharynx and the larynx were exposed. The rectus anticus muscle was next brought into view, whereupon Vesalius detached the head from the vertebral column. Decapitation was followed by an examination of the cranium; the skull-cap was sawed and the brain was dissected in its natural position. Then came the examination of the eye, which Vesalius dissected in two ways: either by a complete section, or layer by layer from without inwards.

The ear and the cavities of the frontal and sphenoidal bones were next opened, provided these bones were not needed for the setting up of a skeleton. Finally he took up the extremities, demonstrating the muscles of an arm and a leg on one side, and the nerves and vessels on the other. The anatomy lesson ended with the introduction of numerous vivisections.

Fearing to tire his audience with too much variety, he confined his students closely to the structure of the human body.

The merit of Vesalius's public dissections, and the impression which they made upon his auditors, can be appreciated only by comparison with similar demonstrations made by his predecessors. The large and enlightened audience remained day by day for a period of three or four weeks. He says not a word about the physical and mental strain incident to such a strenuous course, in which his entire time was employed. The courses brought great financial profit to the professor.

On two occasions, probably in the years 1539 and 1540, Vesalius was called from Padua to Bologna to conduct public dissections. This was a great honor, for Bologna was the

city in which Mondino had revived the practical teaching of anatomy. These courses were conducted by Vesalius in a wooden building erected for that particular purpose.

Vesalius was the author of several valuable works. His *Opus Magnum* was the "Fabrica." The first edition of the "Fabrica" is a folio volume with magnificent illustrations on wood printed by Joannes Oporinus of Basel in 1543. The anatomical plates are remarkably fine. One writer, speaking of the "Fabrica," says: "It was and is a glorious book, a rare and precious monument of genius, industry and liberality." The drawings in this work were done by some great artist and have generally been credited to Titian, who was sixty years old when the work appeared.

Vesalius's words in this work led up to Harvey's great discovery of the circulation of the blood a few decades later. He says: "There is hardly a single vein going to the stomach, the intestines, or even the spleen, without its accompanying artery, and nearly every member of the portal system has a companion artery associated with it in its course. There is through the arteries and veins a mutual flux and reflux of materials."

In 1544 Vesalius retired from the university and went to live in Madrid as physician to Charles the Fifth. In 1564 he made a pilgrimage to the Holy Land and while returning was caught in a storm in the Ionian Sea and his ship was wrecked on the island of Zakyuthos, where on the 15th day of October, 1564, he died of exhaustion.

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Thomas Arnold's (Rugby) hero was not Cæsar but Pompey. Arnold had read Livy and Herodotus for the fiftieth time when he entered Oxford at the age of sixteen (1811).

## ACUTE CHICKEN BREAST.

BY JAMES STEINBERG, M.D., LOS ANGELES, CALIFORNIA.

The case which I wish to cite is one of extreme interest and one which has excited much comment and discussion among several members of the profession.

A child sixteen months old, who sixteen days previous to having been seen, gave a rather indefinite unauthentic history of having swallowed a bone from a mutton chop. The child had been perfectly well before this time. After supposedly swallowing a bone, it was immediately seized with a violent fit of coughing and became somewhat cyanotic. After being slapped on the back, it recovered somewhat, but has been dyspnoeic ever since. Two days before the child was seen, the dyspnoea became more urgent, and the mother began to notice a slight bulging of the sternum which had not been there before. On physical examination the child revealed rather urgent dyspnoea, both inspiratory and expiratory, and the entire sternum bulged anteriorly about one and one-half inches. It appeared as an oval swelling or tumor just the size of the sternum. Of course, one cannot fully appreciate the extent of this bulging without having personally observed it, and as it was the most prominent and interesting feature of the case, it brought forth many theories as to its probable origin and development. The child was a perfectly healthy boy in all respects and gave no history of rickets. There was no dullness over the protruded area. There was normal vesicular breathing all over the chest.

Several members of the profession examined it, and one gave it as his opinion that this condition was present for a much longer period than three days, and made his diagnosis as that of a mediastinal sarcoma with, of course, a fatal prognosis. He claimed that the bone story was an entirely coincident affair.

Another opinion was brought forth which was somewhat as follows: that the child had at present a foreign body located at the bifurcation of the trachea, and that from the dyspnoea caused by the obstruction, the child had developed what was very aptly termed an "acute chicken breast" from retraction of the chest wall and also retraction of the diaphragm in its efforts to breathe. Strange as it may seem, this theory was proved correct by subsequent developments at operation. This operation consisted in a low tracheotomy, and just as soon as the trachea was opened the dyspnoea disappeared almost instantly, the so-called "acute chicken breast" was a thing of the past, and the child began at once to enjoy perfect comfort as far as the dyspnoea was concerned. The bone, by the way, was found not at the bifurcation of the trachea, but up in the larynx, although a carefully previously prepared X-ray picture revealed nothing.

Thus we may adopt a new term in our medical language. The term "Acute chicken breast" may be accepted as a result of an attempt on the part of the chest wall and diaphragm to compensate for the lack of air due to an obstruction in the trachea.

In Denmark, the campaign against tuberculosis has been carried on systematically since 1895. The reporting of living cases of tuberculosis in Denmark has been more successful than in almost any other country of the world. The death rate from pulmonary tuberculosis has fallen from 19.32 to 13.33 per 10,000 from 1895 to 1908. There is now one sanatorium for every 1244 inhabitants and every tuberculous patient is assured of treatment at a cost within reach of anyone. The state pays three-fourths of the expense of treatment and the patient or his community the remaining fourth.

## CALIFORNIA, THE DESIRED LAND.\*

BY WALTER J. BALLARD, LOS ANGELES, CALIFORNIA.

There is no controverting the fact that California is the desired land of hundreds of thousands of people, resident in the United States and other parts of the world. Wherever one travels, east, north or south in this country, or across the Atlantic to England and Europe, and even across the Pacific to the Orient, the same cry is heard, "I want to go to California, and particularly to Southern California." Many, many thousands are debarred of their wish because of the necessarily expensive journey, but that only accentuates the wish. At the same time, many other thousands are coming to us each year.

## CALIFORNIA'S VALUE TO THE UNION.

California must be counted among the most valuable possessions of the United States for many reasons; but chiefly, however, because of its matchless climate and the high economic value which that climate bestows upon a large area of arable land whose coast line measures 850 miles from point to point (about 1000 miles of actual coast), the average width of the state being about 200 miles. The south boundary line of latitude emerges on the Atlantic coast near Savannah, Georgia, and the north parallel near Boston, Massachusetts. Between these two points on the Atlantic coast lie ten states of the Union. It counts for something to the nation that this extended coast line, on the Pacific Ocean, is fortified by a region capable of supporting many millions of people and that the coast to the Canadian boundary line is backed by a country of almost boundless resources. It is not generally appreciated that all of France, all of Italy north of Rome, and half of Spain, lie *north of the north boundary of California*.

## CALIFORNIA DESIRED FOR ITS MATCHLESS CLIMATE.

Professor Alexander G. McAdie, District Forecaster of the United States Weather Bureau, San Francisco, states that the climate of California is controlled by four great factors: (1) The movements of the great continental and oceanic pressure areas (commonly called "high" and "low") together with the movements of individual pressure areas; (2) the prevailing drift of the atmosphere in temperate latitudes from west to east; (3) the proximity of the Pacific Ocean, with a mean annual temperature near the coast line of 55 degrees Fahrenheit, a great natural conservator of heat, to which is chiefly due the moderate range of temperature along the coast from San Diego even to Tatoosh Island (extreme northwest coast of Washington); and (4) the exceedingly diversified topography for a distance of 200 miles from the coast inland. To this diversified topography is due the fact that California is a land of many climates, "from the hottest subtropical to the cold temperate, and from the driest desert to the most humid regions of the higher mountains and northern coast."

The Sierra Nevada Mountains form a natural boundary line on the east, rising gradually from the west to a height of 8,500 to 14,000 feet, much above the snow-line, and falling off to the Nevada plateau, which is about 4,000 feet above sea-level. The Coast Range Mountains form a broad belt, traversing the entire coast, and consist of two or three parallel ranges from 3,200 to 5,000 feet high, and between these ranges are many Mountains on the north, a connection rich valleys, some of large extent. The

\*This enthusiastic article, by a layman, we consider worthy a place in our California climatic literature.



Coast Range merges into the Siskiyou link with the Sierra Nevada, crowned by Mount Shasta; and the Tehachapi Mountains, far to the south, form another connecting link.

Between the Sierra Nevada and the Coast Range mountains and these connecting mountain links, lies the great central valley of California, about 400 miles long and from 50 to 60 miles wide; an agricultural district of great fruitfulness, comprising quite one-ninth of the state. There is but little waste land in it. The northern portion is blessed by ample rainfall, and the southern part, when watered, is everywhere marvelously productive, as is the entire valley. The Sacramento River runs south through the northern portion (Sacramento Valley), rising near Mount Shasta; the San Joaquin River runs north through the southern portion (San Joaquin Valley); the two rivers uniting near the middle of the great valley, flowing westward into San Francisco Bay, and thence through the "Golden Gate" into the Pacific Ocean.

There is here a wide break in the Coast Range, says Mr. Chipman, through which the summer trade winds find their way into the interior, an important factor in the climatic conditions of the valley. This sea breeze blows upstream, north into the Sacramento Valley and south into the San Joaquin Valley, thus tempering the heat of the great central valley. This influence, together with the dryness of the atmosphere, renders the occasional high temperatures of these two valleys more easily endurable at 110 degrees than is 95 degrees in the humid regions of the Eastern states.

#### SOUTHERN CALIFORNIA ARDENTLY DESIRED.

South of the Tehachapi Mountains the Sierra Nevada Mountains continue at less elevation, and are locally called Sierra Madre.

"The wonderfully developed region known as Southern California (Los Angeles, its metropolis) lies west."

On the east is the Mohave desert, and south and east the Colorado desert; important regions of the state as yet but partially developed, but of great fertility by the application of water, which the genius and enterprise of the people are rapidly bringing in touch with the land. As in the north, the breaks in the Coast Range and in the Sierra Madre become important factors in modifying the climate of the interior. In Southern California and in Central California (San Joaquin Valley) extensive irrigation systems already in operation supply the comparative lack of rainfall. Irrigation is also being extensively developed in the Sacramento Valley.

#### NATURAL ICE AND ORANGES AT THE SAME TIME.

Illustrative of the characteristic variations of climate in California, it may be stated that in the vicinity of Summit, Placer County, elevation 7,017 feet, the temperature was 2 degrees above zero and the snowfall for the year was 52 inches. At Rocklin, Placer County, thirty miles west, elevation 249 feet, the lowest temperature was 25 degrees above zero. All the natural ice consumed in California was gathered near Summit, while (at the same time) oranges were being gathered for market around Rocklin. In truth, the California of "sunshine, fruit and flowers" is pretty nearly the whole state, below high mountain elevations.

#### CLIMATE UNCHANGING.

As far back as we have any recorded history, and behind this, embracing traditions coming through the early Mission fathers, we learn of the same equality of temperature, the same balmy atmosphere, the same luxuriance of vegetation. Our soil may require renewing by fertilization, but our climate is as constant as

the sun. The conditions which have produced the result are themselves unchanging, and so must be the result.

#### CALIFORNIA A SANITARIUM.

California is a universal sanitarium. The climate of the coast is invigorating, stimulating, and delightful, neither hot nor cold; the laborer knows no fatigue except from physical exhaustion resulting from over-taxed muscles. The brain-worker yields only to failure of mental powers. In the interior valleys, in mid-summer, the temperature is higher, and there is discomfort at times while working in the harvest fields and at the desk and behind the counter. But the dryness of the air robs the thermometer of much of its terror. Sunstroke is unknown. It is the common experience of persons coming into almost any part of the state that they increase in weight and strength, are less troubled with nervous affections, sleep and eat well, and improve in health, if ailing from any cause, writes Mr. Chipman.

#### CALIFORNIA A SOURCE OF HAPPINESS.

The variety of temperature and climatic conditions existing in the mountains, valleys, and on the coast, and the celerity and ease with which we may change our immediate surroundings, constitute one of the great charms of California life. Thousands of families residing in the valleys find their way into the mountains or to the sea coast and have most delightful camping-out privileges; and this they do in a few hours or a day or two at most, with their own conveyances or electric or steam railways. Our valleys and mountains lie so related to each other that no spot can be found devoid of scenic beauty. There is no dull monotony in the farmer's life as there is from necessity in the lives of those who reside on the great plain regions of the west, few of whom are ever permitted to enjoy the inspiring and elevating means of recreation and rest

from labor which are a part, a daily part, of our life here.

#### ECONOMIC VALUE OF OUR CLIMATE.

Our climate has economic value as a resource because by its influence we are enabled to so marvelously diversify and increase the number of our agricultural products, and often, to, all these products may be grown on the same body of land. It is a resource, and a resource of great value, because man's labor here can be profitably employed every day in the year, because there is no month when vegetation in some form is not growing, and because it affords ideal conditions for the growing of irrigated crops. There is no time in California when all nature is at rest or plant life is sleeping. In the field, orchard, garden, factory, and in the mines; on the stock farm and in the dairy, every day is a day of productive labor. We commence shipping fresh deciduous fruits in May and there is no cessation until December. In November we begin to ship citrus fruits, and continue the year through. We can eat freshly-gathered home-grown strawberries each month the year round.

#### CALIFORNIA, THE AMERICAN RIVIERA.

Professor E. W. Hilgard justly sums up the matter thus: "Taken as a whole, California corresponds in its climatic features and adaptation to the Mediterranean region of Europe and Africa—a grand Riviera, with a partial background of the desert as well, where the date palm and the ostrich find a congenial home, and alluvial plains equalizing in richness the famed delta of the Nile."

#### CALIFORNIA DESIRED FOR ITS EDUCATIONAL

##### FACILITIES.

Few, if any, other states or countries have made such liberal provision for a general system of public education as has California, says Robert Furlong, in the 1910 Annual previously quoted. The founders of the state over fifty years ago

inserted in its Constitution a section liberally providing for the education of youth. Then followed school laws, the establishment of schools, and the building up of a state school system. California's educational system is a growth, the growth of half a century or more of careful cultivation.

There are about 8,000 primary and grammar school teachers, and about 1,100 high school teachers. There are about 300,000 primary and grammar school pupils enrolled, and about 30,000 high school pupils. It is a grand sight to see the school children gathering in their school yards, forming in lines, and marching into school to the music of American patriotic songs, with the Stars and Stripes floating above them. For education of all kinds, primary, grammar, high school, preparatory school, college, university, normal, professional and other education the state and people of California spend, or rather invest, and wisely invest, fully \$15,000,000 a year.

Pages might be written about the desire for California for mining, for agriculture, for manufacturing, for professional life, for real estate operations, for banking, and for the many other avenues of American effort, but space forbids. Suffice it to say that California is pre-eminently the country's and the world's desired land, and favored are those who are able to get here.

Delta Building.

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FOR A NEW INSANE ASYLUM.—Dr. H. G. Brainerd, president of the Psychopathic Association, and W. S. James, secretary, has sent a request to Gov. Johnson that he include in the call for the special session of the Legislature, when such call is made, a section for the consideration of an appropriation for a new institution for the care of the insane in Southern California.

The hospital authorities at Patton, Dr. C. H. Whitman, superintendent of the County Hospital, and others cognizant of the urgent situation at the present moment have joined in this request.

Reports come from Patton that this institution, which has accommodations for 1300 patients, now has over 1500 inmates, and the management requests that no more inebriates or dope fiends be sent there, as they cannot be taken care of. From sixty to seventy patients a month are being entered in the institution.—*Los Angeles Times*, Aug. 26, 1911.

#### DEATH IN THE STREETS.

Among the perils of the cruel city are deaths by being crushed under vehicles. Of 218 persons killed in Manhattan Borough by vehicles in 1910 (almost double the number of all ages killed in 1900) ninety-nine were children under 14 years old, as compared with 31 children killed during the first year of the decade preceding 1910. The population of Manhattan has not doubled and trebled in ten years, but these figures evidence that the dangers in its streets have doubled and trebled in that time. More than twice as many children were killed by wagons and twenty-five times as many were killed in 1910 by automobiles as in 1900. Of course not many of these treacherous vehicles were driven through the streets a decade ago, when only one child was killed by such agency in this borough; but the figures should be significant to parents and teachers, and possibly also to the municipal authorities.—*The Medical Times*.

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“Did you ever hear me preach?” once asked S. T. Coleridge of Charles Lamb. “I never heard you,” stuttered the gentle Elia in reply, “do anything else.”



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A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.  
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Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

## EDITORIAL

### FRANK P. FOSTER.

At the Los Angeles meeting of the A. M. A. and also at the banquet of the American Medical Editors' Association, the delightful personality of Dr. Frank P. Foster was sorely missed.

On Sunday, August 13th, 1911, Dr. Foster died in Chadwick, New Jersey, after having suffered for the last three years from cancer of the throat.

Dr. Foster was born in Concord, New Hampshire, on November 26th, 1841, his mother being a niece of Daniel Webster. He was a great student as a boy and was devoted to Latin and Greek and also especially to the study of botany. He entered Harvard Medical School in 1859, and took his degree of Doctor of Medicine from the College of Physicians and Surgeons (Columbia) New York City in 1862. He was interne at the New York Hospital, which was then the most noted institution in the city,

for two years; after this service he went as ship surgeon on the Pacific Mail steamer Sacramento which ran through the Straits of Magellan to San Francisco. He devoted his spare time while in this service to the study of the German language and literature. In the fall of 1864 he entered the United States Army as surgeon which position he filled until the close of the war in 1865. He then settled in New York City beginning first in general practice, but afterwards devoting himself to Obstetrics and Gynaecology. In 1870 he introduced the manufacture of cow vaccine into America, and in 1873 he went to London and delivered a lecture before the British Medical Association on vaccination.

In 1874 he was offered the chair of Obstetrics in the Medical Department of Yale, but declined. On January 1st, 1880, he assumed the editorship of the *New York Medical Journal*, which posi-

tion he held up to the time of his death. He was the author of Foster's Encyclopædic Medical Dictionary in four massive volumes which it took twelve years to edit and publish, and which has been translated into seven languages. He was also the editor of a reference handbook of Practical Therapeutics in two volumes and was on the editorial staff of the Standard Dictionary. Under his editorship the *New York Medical Journal* soon became one of the leading medical publications of America. It has always been of great scientific value and has at the same time had in it a literary atmosphere that made it a welcome visitor to the office of every physician of culture. We knew Dr. Foster well and saw him frequently while he was engaged on his opus magnum, the great medical dictionary. He was a genial companion, a charming host and a delightful guest. Like General Grant he was almost a continuous smoker.

He looked forward to coming to Los Angeles with anticipations of pleasure as he has many friends here and a grandson living in Hollywood. His death leaves a vacant place in the professional life of America that will be difficult to fill.

#### A WELL-MERITED HONOR.

The daily papers contained the following:

"SACRAMENTO, Sept. 3.—Dr. George H. Kress of Los Angeles, president of the California Tuberculosis Association, today was appointed by the State Board of Health chairman of a committee to investigate tuberculosis problems in the state. Dr. Kress' associates will be Dr.

R. G. Roderick, formerly city health officer of San Francisco; Miss Katherine E. Felton of the San Francisco Associated Charities; A. Bonnheim, Sacramento, and Dr. Charles C. Browning of Los Angeles."

Dr. Kress is eminently equipped for this work and his appointment presages an important work well done.

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#### CHRISTIAN SCIENCE, NO. 7.

We herewith present another installment of the series of articles by Dr. J. M. Buckley of New York that we have abstracted from the *Christian Advocate*.

The medical profession should carefully read all of these papers as they present the teachings of Mrs. Eddy in a fair, unbiased manner. Many of us have thought that Christian Science was an innocent delusion that might prove of advantage to hypochondriacs and nervous people generally, and that it was not worth while to controvert the claims of the healers, but this is a wrong view. Christian Science is causing thousands of deaths through leading people to neglect rational means of controlling diseased conditions.

We have recently met with two instances, one where a wife of a neighbor who was an earnest Christian Scientist was dying, and the husband called us in just a few minutes before her death in order to have the death certificate signed by a physician. He was not a believer of Christian Science, but said that he could not control his wife in the matter and was in the depths of sorrow.

The other, a prominent woman, mother of children, who infected her toe with a corn knife. It was treated by Christian Science methods, gangrene followed, and a physician was called in two or three hours before her death.

Probably there are 500 physicians in the city of Los Angeles alone who can report several such cases as this every year, making the loss of lives from this so-called "innocent" belief run into the hundreds annually in this one community.

HOW MRS. EDDY GOT HER GRIP AND  
HOW SHE KEPT IT.

No other woman professing to found a religion, or radically to change an existing religion, by revelation or "discovery" ever secured so strong a grip upon her devotees or kept it as long and upon so many as Mrs. Mary Baker Glover Patterson Eddy.

Some unlearned or whimsical persons reading the foregoing sentence might ejaculate, "It is a proof that God was with her." They might as well say that God was with Joseph Smith or Brigham Young. Her grip, and its strength and continuity, can be explained without assuming that she received any revelation or any help from God or from supernatural wicked spirits.

HER SO-CALLED "PHILOSOPHY" AND  
"SCIENCE."

Mrs. Eddy's philosophy, including the necessity of arguing down physical and mental pain, sorrow, grief and every normal susceptibility, pleases many, *whereas it is the seed and fertilizer of brutality.*

Her doctrine of sin far surpasses the Universalist theories. "There is no sin." "There is no pain." "There is no need of grief." Self-denial is excluded, and forms of ease and confidence not known in any other religion are enough to please many, at least till they find themselves in conditions which she and her satellites cannot disperse.

The mixture of Healing and Religion in itself was a "charm." Thousands who believed in her healing power went over from Christianity to Eddyism. Many not capable of discerning the mistakes she made in the interpretation of the Bible, or of estimating properly her almost blasphemous mutilation of the most important passages of the New Testament and weighing the additions which she made to that work, believed that no one in the whole Christian world, except Mrs. Eddy, understood the Bible in any respect. Her healing alone would have been the wonder of the day; and her religion by itself would have been considered a fantastic travesty of Christianity. But by putting healing and religion together, persons who were only attached to Christian denominations by social bonds, and those whose religion was merely a formal attendance upon public worship, were drawn into the net.

Some genuine Christians were prepared to gulp down without mastication or tasting the doctrines of Eddyism by their belief that such recoveries of health could not have been made except by the power of God.

Thus they followed the Siren.

MRS. EDDY A BORN DESPOT.

Everywhere and always she commanded; her stubborn Puritan father cowered before her. She triumphed over nearly all the people she met, bringing them to her way of thinking or wishes, or driving them away, except her sister, Mrs. Tilton. As is usual with such a character, Mrs. Eddy was accepted by two classes, one consisting of those who benefited by her rule. In this group were persons to whom she gave important positions. The other class consisted of the weak, who feared her. There is a possibility that a commanding finite personality may be loved and feared by the same individual.

Mrs. Eddy was one of the greatest bluffers the world ever saw. We will



prove it beyond question. The Rev. John Snyder, of Wellesley, preached a sermon on Christian Science, which was published in the *Christian Register*. In that sermon he said: "One of our leading ministers describes an interview he had with Mrs. Eddy, in which she offered to let him cut her jugular vein, assuring him of her ability to heal the wound in his presence."

It is well known that the official representatives of Mrs. Eddy, so long as she lived, were compelled to act the part of parrots.

Immediately Alfred Farlow, Mrs. Eddy's chief representative, wrote to the *Register* the following denial:

I deny without hesitancy that Mrs. Eddy or any other Christian Scientist offered to let a man cut her jugular vein, in order to prove the ability to heal her wound in his presence. \* \* \* *It would be a complete departure from the practice of this science.*

Dr. Snyder immediately wrote to the "leading minister" to whom he had referred and asked permission to use his name, and received the following reply, which was published in the *Christian Register*:

DEAR MR. SNYDER:

I have your note relating to the statement above.

It was *not* the jugular vein. It was the vein or artery above the elbow of which Mrs. Eddy said that I might cut it then and there and that she would stop the flow of blood by *an effort of the will*.

Truly yours,

EDWARD E. HALE.

The name signed to it had few equals in ability and learning and no superior in intelligence and truth.

Mrs. Eddy knew well that Edward E. Hale would not be a party to what might be a very serious afterelap.

One of Mrs. Eddy's first students urged Mrs. Glover (as she was then) to modify her sweeping statements concerning the possibilities of her method. This angered her. But his common sense rebelled when she told her students

that "*she could hold her finger in the flame of a candle without feeling pain.*"

MRS. EDDY'S CUNNING.

Mrs. Eddy set out to make money, first, by charging great sums for her teaching; next, by copyrighting her book, constantly changing it and requiring the use of the last edition; next, by forbidding any other book but those of her writing, including the Bible, which she had spoiled in the interest of her theory to be used in the church, or in teaching Christian Science. She promoted expensive editions. The profits that accrued went into her private pocket. She also encouraged great gifts to herself, which were published in the *Christian Science Journal*. In the year 1890 her publisher, William G. Nixon, tried to persuade Mrs. Eddy to omit a detailed list of her Christmas offerings, and she wrote him:

I requested you through Mr. Frye to reinstate my notice of my Christmas gifts, for the reason I herein name.

Students are constantly telling me how they felt the *mental* impression this year to make me *no* present, and when they overcame it were strengthened and blessed. For this reason,—namely, to discourage mental malpractice and to encourage those who beat it—I want that notice published.

She also—which was quite proper—insisted that her healers should be well paid. She said that "the patient who pays what he is able to pay is more apt to recover than he who withholds a slight equivalent for health." (This is a good hint for the medical profession, and dentists might also make some use of it.)

She is also responsible for this:

"We were demonstrating over a lack of means, which we have learned was just as much a claim of error to be overcome with Truth as ever sickness or sin was;" and she personally speaks of their "comfortable fortunes" that "are acquired by healing mankind morally, physically and spiritually."

She also took great care to make the public believe that she was supported physically and mentally by her system, whereas she was sick frequently. We have laid aside some of the proofs collected to give place for what appeared only last week.

C. F. Libbie & Company will sell at auction in Boston, February 23, autograph letters from Mrs. Eddie. They were written by her to a cousin soon after the first publication of *Science and Health with Key to the Scriptures*. One of these letters tells of her sickness and how she fell in love with Gilbert A. Eddy, whom she married in 1877. This was written at Lynn, Mass., July 14, 1876:

Agreeable to my word, I write you a line, not that I have anything especial to say, but that I want to say something of my late experience.

The day after my return home I had a violent seizure. I had been in the atmosphere of the sick too long for *my belief*, and was now in a bad fix. Mrs. B. ran for Dr. Eddy. He came when I was unconscious and immediately broke the spell. I was astonished at his skill.

He was calm, clear, and strong, and so kind I fell in love with him. Never before had I seen his real character—so tender and yet so controlling. Hattie, you would change your views of him if you were to read him spiritually.

But enough of the doctor. I expect soon to make a change. What that will be we shall learn in the sweet by and by.

We here parallel this confession to "Hattie" with one of much later date addressed to William G. Nixon, her publisher:

The proofs which I received August 27th and returned to printer August 28th are somewhere. I had not changed the marginal references in the copy because I had before written to Mr. Wiggin to make fewer notations and more appropriate ones. When he returned the first proofs a *belief* (*but don't name this to any one*) prevented my examining them as I should otherwise have done, and, to prevent delay, the proof was sent to the printer.

In point of fact Mrs. Eddy was subject to awful nervous attacks till late in her life. Her "belief" was too much for her. The "*don't name this to anyone*" was the rule of Concord, and of Lynn and Boston.

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## EDITORIAL NOTES

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The Sherman Indian Institute at Riverside is building a new hospital with a modern operating room.

Dr. Guy E. ApLynne of Santa Paula has been appointed County Physician for the Union Oil Company.

The regents of the State University still make vaccination compulsory to all entering the Berkeley Institution.

Dr. Philip S. Van Patten of Nordhoff, Cal., is spending the summer months studying at the N. Y. Post-Graduate and Harvard Medical schools.

Dr. and Mrs. H. Wilson Levensgood of Ocean Park, Cal., have gone abroad for six months where the doctor will study in Edinburgh and Vienna.

Dr. Ernest Hall of Victoria, British Columbia, who announced that he would locate in Long Beach, Cal., has decided to return to British Columbia.

MEDICOLITERARY NOTES is a department in the *New York Medical Journal* that is well worth imitating. Even doctors enjoy a drop of oil of lemon in theirs.

Dr. Clarence G. Toland and family of Pomona spent a month at home and then returned for another year to the Mayo Bros. Hospital in Rochester, Minn.

The Council of South Pasadena has passed an ordinance prohibiting the establishment of any tuberculosis sanatorium within the precincts of that city.

The El Reposo Sanatorium is being improved with several additional buildings. It is under the management of H. H. Lind and is one-half mile north of Central Avenue, Sierra Madre.

The engagement of Dr. Ralph Louis Byron and Miss Semon Pearl Ruch, both of Los Angeles, is announced. Dr. Byron is the surgeon in charge of the Crocker Street Hospital.

Dr. A. C. Macleish, one of the prominent young physicians of Los Angeles and son of Dr. A. L. Macleish, will spend a year in Post-Graduate work in Edinburgh, London, Berlin and Vienna.

Dr. W. L. Holt, formerly of Banning, Cal., is now located in Baden, Germany. The doctor has a remarkable collection of butterflies and would like to exchange German specimens for American.

Dr. Webster Merrifield, who has a beautiful residence in Pasadena, has changed a large lily pond to a swimming pool and has made it free to the boys of Pasadena. Merrifield is a fitting name.

Mayor Wadham of San Diego has appointed to fill vacancies in the City Board of Health Drs. H. C. Loos, H. M. Wegeforth and B. J. O'Neill, all members of San Diego County Medical Society.

Doctors E. R. Smith, M. L. Moore, W. G. Cochran, A. C. Rogers, Rea Smith and Guy Cochran have all been having a delightful vacation at the Flat Rock Club, at the North Fork of Snake River, in the Yellowstone Park.

Dr. Arnold Burkelman attended the course of lectures given by Dr. Fuchs of Vienna in San Francisco. He writes that they were intensely interesting and instructive. Dr. Burkelman took in these lectures while en route to the Yellowstone and British Columbia on his wedding trip.

Dr. J. L. Pomeroy of the Pottenger Sanatorium, Monrovia, has been appointed surgeon in the reserve corps of the United States Army. His commission has been confirmed by the Senate of the United States, is dated May 11th, 1911, on account of previous service in the army.

Dr. H. B. Stehman of Pasadena is doing a vast amount of good in the La Vina Sanatorium in the foothills above Pasadena. A large new dining room is nearing completion and other cottages being built in connection with the group now in use, and an infirmary is being built that contains over twenty patients.

There have been several deaths recently in Los Angeles from rabies. One was that of a man from Anaheim, 25 years of age, who, a month after he was bitten by a dog, developed most violent symptoms. Every time he would attempt to swallow he would go into convulsions. For the first few days he was under the care of a Christian Science healer.

A telegram in the daily papers says that the Health Authorities of the State of Indiana believe that they can trace infantile paralysis in Shelby County, where several children have the disease, to hogs owned by a farmer on whose land the children live. Part of the spinal cords of suspected animals will be sent to the laboratory and the cultures used on monkeys.

The State Board of Pharmacists through detectives and decoy drug habits have apprehended several physicians for selling or prescribing morphine or cocaine contrary to the law passed by the recent legislature. It is a good work, but liable to abuse. A decoy, whose income depends in the number of persons he makes guilty is liable to work schemes that might readily trap a man who is in no way ethically guilty.



Dr. Ross Moore was recently called professionally to Phoenix.

Dr. Walter C. Kline, formerly of Kansas City, has taken offices in the Lissner Building, Los Angeles.

Dr. Henry Sherry, one of the leading physicians of Pasadena, has located in Los Angeles with offices in the Auditorium Building.

History repeats itself in all lines of thought. There is always some person who gets pleasure ridiculing the doctors. A few hundred years ago it was Moliere; today it is Bernard Shaw, but 600 years before Christ Nicarchus, the Greek philosopher and poet, doubtless had a quiet chuckle when he wrote:

"Yesterday the Zeus of stone from the doctor had a call.

Though he's Zeus, and though he's stone, yet today's his funeral."

The *Presbyterian Witness* is publishing a series of illuminating articles on "Consumption." The paper in the issue of August 12, 1911, is on "The Financial Aspect and Municipal Control of Tuberculosis," and is by Dr. Smith L. Walker of Truro, Nova Scotia. Dr. Walker is well known in Los Angeles having formerly been resident physician of the California Hospital. He presents a convincing array of important facts in a manner that should do much toward enlightening the laity.

Dr. F. K. Ainsworth, Chief Surgeon of the Southern Pacific Company, received, August 22nd, a check for Fifty Thousand Dollars from Mrs. E. H. Harriman. This gift is to be expended by Dr. Ainsworth in establishing a bacteriological and pathological research laboratory in connection with the Southern Pacific Hospital. The fund will be administered by the Union Trust Company of San Fran-

cisco in the interest of this work of research, which Mrs. Harriman believes will be of lasting benefit to humanity.

We are always in deep sympathy with the applicant who comes before the State Board of Medical Examiners, but, sometimes, we cannot help being amused. The applicant will, all too evidently, be at sea and flounder around telling everything but what he is asked to tell and thus recalls the old Oxford story about the divinity student who, when asked to state the names of the major and minor prophets, replied that, without drawing invidious distinctions between these holy men, he would prefer to give a list of the Kings of Israel.

On Sunday, September 3rd, the automobile of Dr. E. S. Pillsbury jumped a precipice of near 100 feet in Cerritos Pass, Ventura County. The doctor and his wife were instantly killed but the three children, Ernest, Grace and Arthur, ages respectively, 13, 11 and 4, were practically uninjured. Dr. Pillsbury was born in Medford, Mass., July 12, 1866, was a graduate of Cooper Medical College and had been practicing in Los Angeles nine years. The sympathy of all goes out to these three children so suddenly bereft of both father and mother.

A free clinic and dispensary has been opened in San Diego for the treatment of general medical and surgical cases. The clinic is to be known as the Talent Workers' Clinic, and is conducted jointly by the San Diego County Medical Society and a charitable organization known as the Talent Workers, whose ultimate aim is the establishment of a large general hospital for both charity and pay patients. Several rooms have been fitted up in the same building as is occupied by the Anti-Tuberculosis Clinic and the Associated Charities of San Diego, which will aid in looking up the standing of applicants for treatment.

Drs. Stookey and Leonard begin their next Quizz Class preparatory for the California State Board of Medical Examiners, on October 2, 1911, at their offices, 335 Consolidated Realty Building. Drs. Harry Oscar White, Charles L. Bennett and A. Holden Jones are associated with them.

In the section on Pharmacology and Therapeutics at the Los Angeles meeting of the A. M. A., Dr. F. M. Pottenger of Monrovia read a paper entitled,

"Difficulties Encountered in the Therapeutic Use of Tuberculin" in which he spoke of the value of tuberculin being almost universally admitted today. Difficult to administer to best advantage, injection of so many drops of certain dilution every few days cannot produce best results. Individualization necessary. Character and localization of the infection, individual susceptibility, conditions under which patient is being treated and complications present influence dosage. Lack of knowledge as to how tuberculin acts, accurately add to difficulties in interpreting effects.

Dr. Charles A. Shepard in the same section had a paper on "The Production of Immunity in Tuberculosis by Intravenous Injection of Tuberculin."

The chief points made by Dr. Shepard were the production of antibodies; agents that assist in their formation; comparison of the methods of administration; advantages of the intravenous method; the technic of the same; judging increase in dose; opsonic index as a guide; report of ninety cases in which patients were treated intravenously; condemning action of physicians allowing patients to treat themselves; climate as an aid to treatment.

In the section on Pathology and Physiology of the A. M. A. meeting in Los Angeles, Dr. Lyman Brumbaugh Stookey of Los Angeles had a paper on "Some Urinary Findings in Eclampsia" in which he said:

The most prominent urinary findings seem to consist in low urea nitrogen (from 70 to 83 per cent. total nitrogen), high ammonia nitrogen (from 5 to 10 per cent. total nitrogen), high monoamino-acid nitrogen (from 2 to 6 per cent. total nitrogen), a positive paradimethyl-amidobenzaldehyd reaction of a variable intensity which in some instances persisted when indican was absent, an intense Milon's reaction, an appreciable quantity of volatile amines.

In the same section Dr. Halden Jones of Los Angeles read a paper on "Photogenic Bacteria." In the course of his address Dr. Jones said:

Photogenic bacteria possess a peculiarity in the manifestation of their metabolic activity which has never been justly appreciated and used in solving the problems of clinical medicine. The production of photic energy is a direct index of the conditions of metabolism. Experimental variations of the conditions may be followed by an increase or diminution of the light production or by a total loss of it. In chromogenic organisms the pigment once produced does not change in color or quantity with changed condition of metabolism. These organisms probably produce several enzymes as manifested by liquefaction of gelatin, decomposition of proteids and by the oxidation resulting in light. Experiments have been made to follow the light production under various conditions of media, of temperature, of light and of electricity.

Dr. L. Duncan Bulkley in speaking of the treatment of psoriasis says:

An absolutely vegetarian diet is capable of causing the disappearance of the eruption at any season of the year, without external or internal treatment; other non-nitrogenous substances, as butter, oils and fat, may be freely used, to supply sufficient calories. Alcohol in every form is prejudicial, as also coffee, chocolate and cocoa, and much milk or sweets.

## NEW CALIFORNIA LICENTIATES.

SAN FRANCISCO, CAL., Aug. 18, 1911.

In accordance with the law and the rules of this Board the following were granted certificates:

Andrews, Benj. F.	Cooke, John V.
Bacher, J. A.	Coleman, Earl H.
Baldwin, W. I.	Collings, H. A.
Banta, Alice F.	Collins, Clinton D.
Bartholomew, J. Y.	Compagnon, A.
Beebe, Grace D.	Coolidge, S. O.
Best, Eldridge J.	Crossan, J. W.
Bittman, E. J.	Crum, Robt. L.
Blackshaw, J. B.	Cunco, Peter J.
Bland, Franklyn D.	Curtiss F. H.
Bland, Myrtell	Daily, Louis
Bogges, Emma B.	de Obarrío, Paul
Bossert, C. S.	De Ville, Leon
Boyd, W. T.	Domant, A. H.
Bradley, J. B.	Downing, E. D.
Brown, J. R.	Dranga, M.
Brown, Robert	Dresser, W. P.
Bryan, Geo. C.	Duffley, R. G.
Bryan, Lloyd	Evans, H. C.
Bryant, F. J.	Fenner, C. E.
Bush, E. H.	Flanagan, L. J.
Rutler, Edmund	Fox, A. L.
Caldwell, C. B.	Gallup, H. A.
Campbell, Wm. H.	Gardner, V. P.
Clark, Milton F.	Geaung, H. A.
Clarke, J. M.	Granger, A. S.
Cochran, J. S.	Gray, Allen E.

Gray, E. E.  
Guinan, E. R.  
Hadley, J. A.  
Hall, C.  
Hartwell, R. W.  
Harrington, J. C.  
Hickox, A. S.  
Howard, A. R.  
Hund, H. O.  
Jacobs, Jay  
Jacobs, Wm. R.  
Jeffs, M. D. W.  
Johnson, E. E.  
Keith, I. W.  
Kenney, M. A. J.  
Kilgore, E. S.  
Kimberlin, L. O.  
Leavitt, F. J.  
Lewis, O.  
Lisser, H.  
Macklin, R. K.

Maisch, A. F.  
Markel, H. H.  
Martin, D. L.  
Massio, A. M.  
Mathias, C. K.  
MacCracken, W. B.  
McCalla, A. D.  
McCalla, L. R.  
McManus, F. A.  
Miller, B. F.  
Miller, J. L., Jr.  
Morgan, N. D.  
Morris, J. R.  
Negley, J. C.  
Nielsen, J. C. E.  
Obeare, A. L.  
P. de Obarrio  
Pascoe, M. W.  
Petersen, D.  
Phelps, F. W.  
Podstata, V. H.

Ray, F. S.  
Reardan, F. B.  
Richards, J. R.  
Richards, J. W.  
Rickels, H. E.  
Riewel, H. V.  
Risley, E. H.  
Roberg, O. T.  
Roncovieri, A., Jr.  
Ryan, R. C.  
Sage, F. C.  
Samuels, S. M.  
Seid, M. J.  
Shulman, L.  
Smith, H. H.  
Sprague, N. F.

Staniford, K. J.  
Steinberg, Jas.  
Stork, V. E.  
Stoughton, A. V.  
Synge, E. C. S.  
Talbot, F. S. M.  
Thayer, L. H.  
Turney, D.  
Visalli, J.  
von Werthern, H. L.  
Watters, H. G.  
Wilcox, G. B.  
Wilson, Sam'l.  
Wolfsohn, J. M.  
Yakeley, H. R.  
Zuber, A.

Lloyd LeR. Krebs, honorably discharged  
United States Surgeon, John J. Kyle,  
honorably discharged United States Sur-  
geon.

## BOOK REVIEWS

A TEXT-BOOK OF MEDICAL DIAGNOSIS.  
By James M. Anders, M. D., Professor of  
the Theory and Practice of Medicine and  
of Clinical Medicine, and L. Napoleon  
Boston, M. D., Adjunct Professor of Med-  
icine, Medico-Chirurgical College, Phila-  
delphia. Octavo of 1195 pages, with 443  
illustrations, 17 in colors. Philadelphia  
and London: W. B. Saunders Company.  
1911. Cloth, \$6.00 net; Half Morocco,  
\$7.50 net.

Individualization of cases is the ele-  
ment insisted upon by this new work.  
The introduction makes a strong plea  
for complete diagnosis through careful  
and laborious effort, insisting on a sec-  
ondary re-diagnosis after the primary  
study is completed. Attention is called  
to the fact that by being always on the  
alert and looking for associated affec-  
tions and complications, the diagnostician  
rather frequently unearths some impor-  
tant phase of the case which had been at  
first undiscovered.

As an aid to systematic study an elab-  
orate scheme for history taking and  
physical examination is given, and due  
attention called to all of the latest  
laboratory helps. The work is not com-  
plete as to laboratory methods and  
technique, but it makes up for this fault  
by giving good interpretations to labora-  
tory findings. That is a distinct advan-  
tage to the busy general practitioner who  
often fails to interpret properly his  
laboratory report on receiving it.

In the section on separate diseases  
each clinical picture is thrown on a  
pathological background that aims to  
bring out its definite and pathognomonic  
characteristics. The book is a useful  
contribution, though susceptible of im-  
provement in some of its descriptive text.  
The pictures drawn are not always clear-  
cut though, to the author's credit, it must  
be said that this does not apply to other  
than diseases, like Pellagra, with which  
he has had less personal experience.

The illustrations are largely original  
and appropriate. C. L. B.

HIERONYMUS FRACASTOR'S SYPHILIS.  
FROM THE ORIGINAL LATIN. A Trans-  
lation in prose of Fracastor's immortal  
poem. Printed on hand-made Imported  
paper; Library Binding. Crown Octavo.  
The Philmar Company, Medical Publishers.  
Fidelity Building, St. Louis, Mo. Price,  
\$2.00.

This volume will prove a delight to  
any lover of good literature as well as  
to any person who is at all interested in  
the history of medicine. Hieronymus  
Fracastor was born in 1483 and died  
1553. He was a poet and scholar and  
served as a Professor of Logic at Padua.  
To give an idea of his beautiful style  
we will only quote from his tribute to  
the Lemon tree:

"And thou, especially, noble lemon  
tree, the pride of the Hesperidea,



precious gift of the Orient, fear not that my muse will forget thee here. Already rendered celebrated by illustrious poets, deign again to accept the homage of a physician. May thy brow be crowned with eternal verdure, may thy thick branches be decorated with perfumed flowers and bend beneath the weight of their golden fruit! Divine tree, which Venus endowed with marvelous powers as a souvenir of her dear Adonis, we hail thee who, in actual trouble, furnishes us the most useful help for our disease."

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A TEXT-BOOK OF ALKALOIDAL THERAPEUTICS, being a condensed resume of all available literature on the subject of the active principles added to the personal experience of the authors. By W. F. Waugh, M. D., and W. C. Abbott, M. D. Third Edition, Revised and Enlarged, Chicago, The Abbott Press, 1911. Price, \$5.00.

This large volume is a typical Abbott-Waugh publication. It goes thoroughly into the description and clinical uses of a great many different drugs. It has an especially full description of the use of Cactin from *Cactus Grandiflorus*. In regard to clinical vs. laboratory observations, the writer says:

"The results of clinical observations with *cactus grandiflorus* and the claims which are consequently made regarding its action, point to the fact that it is of particular value in functional affections of the heart, while it exerts but a slight and secondary effect upon organic cardiac disturbances. Furthermore, the action of the drug is probably exerted far more upon the innervation, more particularly upon the sympathetic nerve plexus of the heart, than upon the heart muscle. Furthermore, experience has shown that *cactus* does not, like *digitalis* or *strychnine*, lengthen, intensify or increase the degree of ventricular or auricular contractions. It has been found by experience to work more particularly in conditions in which the action of the heart was uneven, irritable, excessive in rate or the reverse. In fact, it has been found to act essentially as a regulator of the functionally disturbed work of the organ.

"All these experiences remove the drug from the sphere of laboratory investigation and a further reason for this we find in the experience that a normal heart is not influenced in any way by the exhibition of *cactus*, while an irritable or abnormally acting heart is favorably influenced, with a tendency to regulating its work.

"We must, therefore, conclude that the laboratory experiments which have been presented in the literature of the last three years in opposition to the therapeutic value of *cactus grandiflorus* and its preparations have not proved anything of merit or anything even worthy of further consideration, if it were not necessary to disabuse the minds of the blind worshipers of the highest science, so-called, which even in the best established laboratories sometimes deteriorates into pseudoscience, and if it were not desirable to support those clinicians who know from their experience at the bedside the merit and value of the drugs in question in their conviction, and to vindicate the use of the remedies."

The Abbott-Waugh have a message to deliver and they promulgate it in no uncertain tone in an entertaining style that is all their own.

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ONE HUNDRED SURGICAL PROBLEMS The Experiences of Daily Practice Dissected and Explained. By G. Mumford, M. D. Visiting Surgeon to the Massachusetts General Hospital, Instructor in Surgery, Harvard Medical School; Fellow of the American Surgical Association. W. M. Leonard, Publisher, Boston, 1911. Octavo, 351 pages. Price, \$3.00.

This is a volume of the Case History Series, other members of which are: Case Histories in Medicine, by Richard C. Cabot, M.D.; Case Histories in Pediatrics, by John Lovett Morse, M.D., and Case Histories in Neurology, by E. W. Taylor, M.D. Mumford's work consists of one hundred surgical histories, presented as case reports, a reversion to a very old form of medical writing. The cases are surgical problems or illustrations of important features in diagnosis

and treatment. It is a diversion from the prevalent works on surgery. But it is difficult to understand what is to be gained by the writer's method of denoting the patients by fictitious names. The cases are numbered, and that should be sufficient without resort to fiction in a work of science. The cases are well selected and classified, accompanied by a discussion of the symptoms and the reason for the diagnosis and treatment, and a statement of the results. In fact, it constitutes a sort of correspondence post-graduate course in surgery. A notable feature is a series of ten full-page X-ray plates, illustrating ptosis of the large intestine. Radiography of the gastrointestinal tract, after the ingestion of bismuth paste, has recently contributed much to our knowledge of anatomy and physiology, and deserves recognition as an important diagnostic method. But in routine work, it is not ordinarily necessary to resort to that method to make a diagnosis of ptosis of the large intestine. All the cases are interesting, and many would admit of further discussion by a second party. Thus, in the first case, diagnosed as "retroperitoneal hernia (duodenal ulcer,)" the patient gave a history of operation for duodenal ulcer, and the writer tells of operating upon him, first for what proved to be a retroperitoneal hernia, and later for the relief of adhesions. "Subsequently he was transferred to the medical wards to be 'built up.'" Following this is the following foot-note: "A pleasant account of this case, assigning all credit for the patient's cure to his treatment in the medical wards of the hospital, is given in a recent number of the *Boston Medical and Surgical Journal*." After suffering many things from the surgeons and finally recovering in the medical wards, it would be interesting to know the patient's opinion as to the cause of his recovery. Of course, he is not a medical man, but don't you think he would be entitled to an opinion, especially since

the medical men in the case seem to disagree as to the cause of the patient's recovery?  
G. E. M.

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OBSTETRICS. Volume V of the Practical Medicine Series. The set comprises ten volumes on the year's progress in medicine and surgery, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. The present volume is edited by Joseph B. DeLee, A. M., M. D., Professor of Obstetrics in the Northwestern University Medical School, with the collaboration of Herbert M. Stowe, M. D. Series 1911. The Year-book Publishers, 180 N. Dearborn Street, Chicago. Price of this volume \$1.25; price of the series of ten volumes, \$10.00. Each volume is complete for the year prior to its publication, on the subject of which it treats.

A great amount of investigation is being done on obstetric problems, and although very little of practical value has been accomplished, we are offered promise of very useful results. The sero-diagnosis of pregnancy, the ferment, and anaphlactic theories of eclampsia, the antitoxin experiments for the toxemias of pregnancy, are in this class. One would have thought that the clinical treatment of such a common complication as postpartum hemorrhage would be a closed chapter, but lately Momburg's belt has been widely advocated for it. More encouraging reports are at hand for the treatment of hemophilic diatheses in the newborn by the injection of human blood, or human serum or even direct transfusion. Purperal fever is still the *bete noir* of obstetrics, and if progress has been made, it has been in the line of treating such cases medically—not locally, without specific indications. The newer methods of Caesarean section seem to be less enthusiastically advocated, and even pubiotomy has settled down into the inconspicuous place it deserves. A very significant indication of the trend of modern medicine is the greater attention which is being paid to obstetrics by the colleges and the medical societies. It is becoming more and more evident that



students must be given better and more training in this special department, if they are to assume the responsibilities an obstetric case presents. One can observe, here and there, a popular demand for better obstetricians, for better maternal facilities, and in general for better obstetric care, both from physicians and nurses. It is hoped, and it is not unreasonable to expect, that this demand will draw to the specialty more of the bright young men, who now prefer to go into surgery. An attempt is being made in several of the large cities to regulate and improve the practice of midwives—the first wide effort of its kind in this country. While most physicians believe the midwife should be abolished, no one has offered a practical substitute for her.

The volume is divided into four parts, giving short abstracts of the recent literature on pregnancy, labor and puerperium, and the newborn. G. E. M.

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THE PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery, under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School. This is Volume IV, on Gynecology, edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and C. von Bachelie, M. S., M. D., Assistant Professor of Obstetrics, Chicago Polyclinic and College of Physicians and Surgeons. Gynecologist to the German Hospital, Chicago. Series 1911. The Year Book Publishers. Chicago.

The present volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery, each volume being complete for the year prior to its publication on the subject of which it treats. The price of this volume is \$1.25; the price of the series of ten volumes is \$10.00.

The latest review is of an article by Hoover and Marden (Surg., Gynec. and Obstet., March, 1911), the report of the case of a Greek woman, aged 40 years, who had never menstruated, although

she had given birth to 11 children, 5 of whom were living. The grandmother of the patient had never menstruated in her life, and the mother had menstruated only once in one or two years. A daughter of the patient, a girl of 15 years, had never menstruated. The patient said that she had never had symptoms of a menstrual molimen of any sort whatever, no knowledge of when her menstrual period might be due, no malaise, no pain; in fact she did not know what it was to be sick.

The volume is of convenient size, and presents a good review of the subject. For a work of this character, it contains a large number of plates. Altogether, the series is steadily improving.

G. E. M.

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HANDBOOK OF SUGGESTIVE THERAPEUTICS, APPLIED HYPNOTISM, PSYCHIC SCIENCE, a manual of practical psychotherapy, designed especially for the general practitioner of medicine and surgery. By Henry S. Munro, M. D., Omaha, Nebraska. Third edition, revised and enlarged. Published by the C. V. Mosby Company of St. Louis.

Many of the local physicians remember the demonstration given by Dr. Munro in Los Angeles some years ago. The American profession is fortunate in having a medical man of Dr. Munro's training, ability and character, devote his attention to this subject, which has suffered such great neglect at the hands of truly scientific men. The presentation in this volume is eminently lucid. The purpose of the book is to indicate the practical usefulness of psychotherapeutic principles in their application to the work of the general practitioner.

The present edition is marked by the addition of eight new chapters, and a general revision of the work.

The impression that some physicians have, that psychotherapy directly demands from them that they are to humbug their patients, or throw out suggestions which they themselves do not believe, and thus bring them down to the level of the Christian Scientist



or the magnetic healer, is altogether an erroneous one. The tendency of the physician under such impressions to steer shy of the measure only shows his conscientious instinct on the one hand, and illustrates his misconception of the subject on the other. It is by reason of the neglect of psychological methods of treatment by the medical profession that many sick people have come to ignore scientific medicine in a vain effort to obtain relief from psychological ills, and seek aid from the Christian Scientist, the osteopath, the magnetic healer, or anything that offered relief without drugging and surgery. While this state of apathy exists in the ranks of the medical profession, the popular "ists" and "paths" and other disguises are standing with open arms, beckoning these discontented and unfortunate ones to come into their ranks and get their psychotherapy in a placebo capsule of religious dogma or bonepath massage.

Physicians have done much for the protection of the human body, but what are they doing to prevent the parasitic infection of absurd beliefs, and dogmas, and theories that at the present time infect the human mind with their blighting, weakening influence upon the development of body, mind and character?

G. E. M.

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JOINT TUBERCULOSIS. By Leonard W. Ely, M. D., Consulting orthopaedist to the County Hospital, Attending Orthopaedist to the Children's Hospital, Denver, Colo., member of the American Orthopaedic Association and the American Medical Association; Associate Fellow of the New York Academy of Medicine; formerly surgeon to the Sea Breeze Hospital; consulting Orthopaedist to the Roosevelt Hospital; Orthopaedic Surgeon to the Metropolitan Hospital, N. Y., etc. Illustrated. Price, 2.50 net. New York: William Wood & Company, MDCCCXI.

No disease can be understood unless its pathology is known; good authority is not lightly to be set aside, but as Ely says, we often find on closer observation that which we have taken on good

authority as facts turn out to be merely surmises.

The key to the phenomena of joint tuberculosis will probably be found by a correct study of its pathology checked up by clinical experience. This book is an endeavor to unravel the problem and supply the key. Here as in most fields of modern medicine we come, on the threshold of our study, upon a moot question; are the bacilli carried to the joint primarily, or are they brought from some other focus of the body? This has as yet not been definitely determined.

We are glad to see that Ely considers it no more necessary to predicate an injury in joint tuberculosis than in pulmonary or lymphnode tuberculosis; in the synovial type possibly the influence of trauma may be admitted in some cases but we must not forget that fractures and dislocations are never followed by joint tuberculosis; if trauma is a factor at all it is usually a wrench or strain, but it still is a moot question. If we follow Nichols' lead, however, we will believe that all cases of joint tuberculosis originate in a bony focus. Ely from his studies does not concur and we agree heartily. Ely views the so-called "rice bodies," not as Schuchardt, Garrè and Goldman had taught us to consider them as degenerative products of diseased synovial membranes, but rather as an evidence of an effective effort at cure, more as an exaggeration of the usual process of walling off the disease by fibrous tissue.

As in all cases where we wish a consensus of opinion between the laboratory and the clinical findings it is necessary to make a thorough examination and Ely emphasises the necessity of making sections from many parts of the joints otherwise the laboratory conclusions are apt to be erroneous and not agree with the evident clinical picture. The author believes that König and his followers are

in error in evolving this pathology of the entire joint from the formation of an exudate and the precipitation of layers of fibrin upon the cartilage from this exudate, its subsequent organization and tuberculous infiltration. Ely has advanced, in a very readable manner, strong proof that the exudate is a symptom that plays but a small part in the extension of the disease, and concludes that no serious damage is ever wrought to the joint cartilage in tuberculous disease except that which is done indirectly by the involvement of the adjacent bone marrow.

The author advances this important generalization which has great clinical significance; when red marrow is found in bone, the bone is subject to tuberculous infection; and when it is not found then the bone is immune to a purely tuberculous infection and the further important application of this knowledge is—that any procedure that causes epiphyses of long bone to lose its cancellous structure and to become compact bone, that is a change of the red or cellular or lymphoid marrow to yellow marrow will cause the disappearance of the disease at this spot. These statements of Ely's, of great importance to the surgeon, will, I think, be accepted by all of us in the United States, but not as yet in Germany. In our country, particularly in the west, it hardly seems to me that we have sufficiently recognized the fact, made clear by Ely, that a tuberculous abscess until secondary infection takes place may at any time be absorbed spontaneously and disappear; all of course agreeing that when secondary infection occurs spontaneous disappearance is impossible.

We must remember that the walls of an uninfected abscess or sinus are not tuberculous unless the walls themselves are made up of a tissue vulnerable to unmixed tuberculosis, that is red bone marrow or synovial membrane.

The book very correctly denies the

existence of primary fascia tuberculosis but recognizes the existence, but extreme rarity, of primary muscle tuberculosis following the excellent paper: *Zur Kenntniss der Primären Muskel-tuberculose* (Arch. f. Klin. Chir. Bd. 77, s. 1033) of Frida Kaiser.

The reviewer can in no way better show the advanced standard of the author than by calling attention to his ideas of the relation of the tubercle bacillus to the lymphocyte. If his deductions are correct the whole problem of the occurrence of tuberculosis in the joints and in some other tissues becomes indeed a simple one. He suggests that the lymphocytes and certain other similar cells are not nature's defensive organism, but the natural food of the tubercle bacillus. When the bacilli thrown out from the blood into the various tissues find cells suitable for their growth they live, when they do not find these cells they die. In other words the relation of the tubercle bacillus to the lymphocyte is the same as that of the gonococcus to the polymorpho-nuclear or of the malarial plasmodium to the red cells. It is extremely interesting and explains his earlier statement of the selection of the red marrow of bones as the selective site for tuberculosis as the bacilli can find no food in the yellow marrow.

The book is replete with apt paragraphs and trite sayings as, "The treatment of joint tuberculosis in children is almost invariably conservative, in adult it is almost invariably radical," again, "A skilled instrument maker is a convenience but not a necessity. If the surgeon knows exactly what he wants, a blacksmith and a harness maker can carry out his instructions."

We agree with the author that the final word has not been spoken in regard to the use of vaccines and tuberculin in tuberculous joints; in the hands of some it has certainly seemed to have been of value; many agree with this statement, some do not.

He condemns the great popularity that injections into the joints and into the circumarticular structures has enjoyed, a popularity fortunately not so marked with us as in Europe. It is not likely that any substance (iodoform and glycerine, iodoform and ether, formalin) thrown into a joint can make its way deep into the synovia and into the other soft tissue, where the tubercle are known to lie. With Ely I think that it is absurd.

The conclusions on page 87 and 88 in regard to the pathology of bone tuberculosis and its relation to the medical treatment of tuberculous joints are very valuable indeed, we regret that space will not allow the reproduction here.

Huntington's so-called "tunnelling operation" is justly condemned (page 97) he feels, as I do, that the three cases reported were probably not tubercular and that the procedure is not based on sound surgical principles. Section 2 of the book is devoted to a full consideration of tuberculosis of the spine, the hip, knee, ankle, tarsus, wrist, shoulder, elbow, sacro-iliac joint, and the fingers and toes. Each are fully considered in all respects.

The description of the differential diagnosis and the treatment of all these varied conditions is unusually well presented in a very lucid way. The book finishes with an appendix on some pathological processes in tuberculosis and a number of very valuable case histories. The illustrations are sufficient and satisfactory. It is a work that we take pleasure in reading and great pleasure in commending to others.

WILLIAM A. EDWARDS.

INTERNATIONAL CLINICS, a quarterly of illustrated clinical lectures and especially prepared original articles on treatment, medicine, surgery, neurology, paediatrics, obstetrics, gynaecology, orthopaedics, pathology, dermatology, ophthalmology, otology, rhinology, laryngology, hygiene, and other topics of interest to students and practitioners, by leading members of the

medical profession throughout the world, edited by Henry W. Cattell, A. M., M. D., Philadelphia, with the collaboration of Wm. Osler, M. D., Oxford; John H. Musser, M. D., Philadelphia; A. McPhedran, M. D., Toronto; Frank Billings, M. D., Chicago; Chas. H. Mayo, M. D., Rochester; Thos. H. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburgh; John Harold, M. D., London; and Richard Kretz, M. D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipzig, Brussels and Carlsbad. Volume II, Twenty-first Series, 1911. J. B. Lippincott Company, Philadelphia and London, 1911. Price \$2.00.

This is a standard work, and the present volume maintains the excellent standard of its predecessors. The first article is on "The Causes and Principles of Treatment of Constipation," by Edward Turton, which was the opening address at a discussion at the East Yorkshire Division of the British Medical Association. Discussing experimental work in administering bismuth oxychloride with the food and watching the progress of its shadow by means of X-rays, it was found that, provided no action of the bowels takes place in the interval, food takes about thirty-two hours to pass from mouth to anus. This time would, however, be considerably modified if defecation takes place a short time after food is eaten, for on defecation not only are the rectum, iliac and descending colons emptied, but some of the contents of the distal end of the transverse colon pass into the descending colon to be voided with the rest. Consequently if defecation takes place nine or ten hours after food is taken, that portion of the food residue which has reached the transverse colon will be present in the stool. Hence, supposing the bowels act once a day, a period varying from nine to thirty-two hours, according to the time of the meal and that of defecation, will elapse before the residue of the food is extruded at the anus. Constipation is defined as an abnormal delay in the passage of the intestinal contents from the caecum to and through the anus. That



the bowels should be opened every morning before breakfast is a convention and convenience suited to the habits and diet of modern life, but it is not an absolute necessity.

It is impossible to satisfactorily abstract a work such as the *International Clinics*. The volume contains a number of interesting and important articles. But we regret to miss the reviews of medical progress.

G. E. M.

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THE PRINCIPLES AND PRACTICE OF MODERN OTOLOGY. By John F. Barnhill, M.D., Professor of Otology, Laryngology and Rhinology, Indiana University School of Medicine; and Ernest de W. Wales, B.S., M.D., Clinical Professor of Otology, Laryngology and Rhinology, Indiana University School of Medicine. Second Edition revised. Octavo of 598 pages, with 305 original illustrations, many in colors. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50; Half Morocco, \$7.00 net.

It used to be said that the only thing in the ear that would interest the surgeon was the fee, but that was before the day of modern otology. This work attempts to do the following things: To modernize the subject, correct certain traditional beliefs, advocate the earliest possible prophylaxis or treatment, emphasize the importance of a thorough examination and a definite diagnosis as a basis for rational treatment, and to thoroughly illustrate the text. The general verdict of the reviewer is that it succeeds in a very satisfactory manner in these objects.

The reviewer has assisted in perhaps a thousand operations for the removal of adenoids and tonsils, but thinks that the author has a different brand of children than those found in California. Says he, "The operator requests the child to open his mouth, then using the flat blade of the tonsillotome or a tongue depressor, slips it quickly over first the right tonsil and then the left, and removes each deeply before the child is scarcely aware of what is taking place. Without a second's delay, and therefore before the child begins to strangle from

the free outpouring of blood from the excised tonsil, a curet of proper width and shape is inserted behind the palate and the adenoid is severed by a single sweep of the knife over the vault."

The above procedure is not the best. Children should be anaesthetized, the tonsils enucleated and the adenoids more deliberately removed.

The author should have been given more space to the discussion of nystagmus in the chapter on examination of the function of the ear. When it comes, however, to the anatomy, surgery and operative technique upon the ear the book is excellent and in clearness of illustration leaves little to be desired.

Under "Methods for Examination of the Patient" there is a painstaking, finely illustrated description of Eustachian catheterization that cannot fail of being of great value to the learner. The familiarity of the subject by the author does not obscure the fact that many of his readers are incapable of doing this essential procedure easily and safely and painlessly. The author devotes eight pages to this account and gives methods, instruments, technic and difficulties clearly and in a very instructive manner. It is just such things as here discussed so well that makes the book so valuable.

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ONE THOUSAND SURGICAL SUGGESTIONS. By Walter M. Brickner, B.S., M.D., Adjunct Surgeon Mount Sinai Hospital, Editor-in-Chief American Journal of Surgery, with the collaboration of James P. Warbasse, M.D., Harold Hays, M.D., EH Maschowitz, M.D., and Harold Neuhoef, M.D. 225 pages. Cloth Bound Semi-de Luxe, \$1.00. Full de Luxe, Leather, \$2.25. Surgery Publishing Company, 92 William Street, N. Y., U. S. A.

This is one of the biggest little books ever presented to the profession. In its 225 pages are found a collection of 1000 epigrammatic succinct, virile and instructive hints based upon actual experience and everyone a lesson in itself.

The Suggestions are so arranged and indexed that all subjects covered can be immediately referred to and the par-

ticular hint upon any particular subject immediately found. It bristles with pointed and useful suggestions which in many cases might just turn the scales from failure to success. Its mechanical presentation is a feature worthy of mention. It is square cloth bound stamped in gold, printed upon India tint paper with Cheltenham type with special marginal side headings in red. A dollar could not be better invested than in the purchase of this book.

**DISEASES OF THE STOMACH AND INTESTINES.** By Boardman Reed, M.D., Member of the American Medical Association, American Climatological Association, American Academy of Medicine, Foreign Member of the French Societe D'Electrotherapie; Consulting Gastro-Enterologist to the Pottenger Sanatorium, Monrovia, Cal.; Consulting Physician to the Corey Sanatorium and Hospital, Alhambra, Cal.; Late Professor of Diseases of the Gastro-Intestinal Tract, Hygiene and Climatology in the Department of Medicine of Temple University; Late Physician-in-Chief to the Samaritan Hospital; Late Physician to the American Oncologic Hospital, Philadelphia, etc. Illustrated. Third Edition, thoroughly revised and largely rewritten. New York: H. B. Treat & Company, 241-243 West 23rd street. 1911

This third edition of Dr. Boardman Reed's volume should be of more than passing interest since Dr. Reed has himself been a Los Angeleno (Alhambra) for several years, and because in this new edition he has been assisted by several other members of the profession, viz: by Dr. Stanley P. Black, Dr. Wm. P. Millspaugh, Dr. James P. McReynolds,

Dr. J. E. Pottenger and Dr. F. E. Corey.

The volume itself admirably fulfills its purpose in presenting to the profession the newer methods available in the diagnosis and treatment of disease of the digestive system. It is a quite complete clinical guide to the diseases of this system.

In the present volume Dr. Black has revised the chapters on the examination of the urine and feces, Dr. Millspaugh has collaborated in the chapters on ulcer, Dr. McReynolds has reviewed the recent work on intestinal obstruction, and Dr. J. E. Pottenger has collated the material on tuberculosis.

The joint efforts of the author and his associates has produced a book of more than usual merit, of some 1037 pages. Those who wish a good guide on this very important subject will make no mistake in purchasing Reed's work.

**AMERICAN POCKET MEDICAL DICTIONARY.** Edited by W. A. Newman Dorland, A.M., M.D., Member of Committee on Nomenclature and Classification of Diseases, of the American Medical Association; Professor of Obstetrics, Loyola University, Chicago. Containing the pronunciation and definition of all the principal terms used in medicine and the kindred sciences, including dentistry, veterinary medicine, nursing, etc., with over 60 extensive tables. Seventh Edition, Revised and Enlarged. Philadelphia and London: W. B. Saunders Company, 1911.

This very satisfactory work, bound in a delightful style, all for \$1.00, is certainly a gem.

## ABSTRACT DEPARTMENT.\*

### CURRENT GERMAN LITERATURE.

Translated and Abstracted by R. L. Cunningham, M.D., Los Angeles.

*Berliner Klinische Wochenschrift*, March 20th, 1911. This number contains two articles of interest dealing with stomach conditions. The first is an extensive paper upon the subject of Resection of the Stomach for malignant disease, by Pochhammer. He points out

the recent improvement in the results of operation for non-malignant disease of the stomach, such as ulcer and its various sequelæ, but chiefly with the purpose of emphasizing the necessity for early operation in cases of malignant growth. In this affection much time is frequently spent in making the diagnosis of carcinoma a certainty, and the laboratory methods employed often

\*Read before the Los Angeles County Medical Association, June 2, 1911.



consume several weeks. Boas has recently stated that this time is not to be looked upon as wasted, since any case that suffers from such delay is one which would have been inoperable or hopeless if recognized earlier. Pochhammer takes violent exception to this statement, and compares it to the obvious wrong inflicted upon a patient who with a tumor in the breast is subjected to long observation before operation. He supports the old assertion that when a carcinoma of the stomach is palpable through the abdominal wall it has already metastasised so extensively as to be hopeless or inoperable. Every affection of the stomach which is not of a transient nature and for which no other satisfactory explanation is evident, should be considered as suspicious of malignant growth, and so treated.

In the same number of this journal Schlesinger discusses Acute Atony of the Stomach, especially that form which is occasionally seen following abdominal operations. He reports what he says is the first case of such a condition associated with fecal vomiting in the absence of any occlusion of the upper bowel. He employed repeated lavage of the stomach, as often as every hour at first, and gave saline by rectum and hypodermatically at the same time to restore the fluids lost by excretion into the dilated stomach.

In the *Deutsche Medizinische Wochenschrift* for March 23, 1911, is an interesting and valuable article by M. Sternberg upon the Treatment of Leukæmia. He states that the careful use of the X-Ray treatment under constant supervision has enabled him to keep patients in good condition and at work for years, often till death from some intercurrent infection supervenes. The action of the radiotherapy he explains as in part direct upon the blood-forming organs and in part indirect, through the action of substances generated within the body by the rays and which inhibit

the production of leucocytes in parts of the hæmatopoietic system not exposed to the light. He also mentions four men who had worked with X-Rays a great deal who have died from leukæmia, pseudo-leukæmia or lymphosarcoma, a fact which he thinks is significant. The X-Ray treatment is to be employed at first in all cases. In intervals, or at the same time, courses of arsenic are advised, though arsenical poisoning is easily brought on in such patients. Sternberg states that Salvarsan has no action in leukæmia. The blood should be watched at all times and upon the appearance of large numbers of myelocytes in the circulating blood exposures to the light should be discontinued.

W. Elstein, in the *Münchener Medizinische Wochenschrift* for March 21, 1911, takes up the matter of the occurrence of Cardiac muscular insufficiency, cylindruria and albuminuria as evidences of or temporary results from a chronic constipation. Where constipation exists in a patient who shows albumin and casts in his urine the condition within the bowels must be cleared up before one can give any prognosis as to the kidney affection. In many instances the urinary findings and even an embarrassed heart muscle may be corrected entirely when the constipation is relieved and when it is no longer possible for the toxic products in the intestine to be absorbed. Even the symptoms of an exophthalmic goitre have been seen by him to clear up when a chronic coprostasis was overcome by large enemata of oil.

In the same number Bardachzi gives the experience of the medical clinic at Prague, in the use of effervescent mixtures for dilating the stomach for examination. The accidents met have been from perforation of an ulcer or of a carcinoma, hemorrhage and less frequently cardiac symptoms from displacements induced by the pushing up



of the enlarged stomach. The practice has therefore been abandoned in that clinic and air alone is now used, a glass jar with two mouths being interposed between the stomach tube and the inflating bulb. The pressure of the air within the stomach can be controlled so much more easily and accurately in this way that the method is vastly safer than the old measure of using soda bicarbonate and tartaric acid.

### MEDICINE FROM CURRENT ENGLISH AND AMERICAN JOURNALS.

Abstracted by Dr. Dudley Fulton.

Interstate Medical Journal, March, 1911. The Bearing of Old and New Facts upon Our Conceptions of Cardio-Vascular Disease, by Hobart A. Hare, M.D., of Philadelphia: G. A. Gibson, of Edinburgh, first called attention to the relationship of blood-pressure to heart-force in acute pneumonia (in the *Edinburgh Medical Journal* for January, 1908, in the course of an article entitled "Some Lessons from the Study of Arterial Pressure"). Gibson states that a pressure appreciably below normal in pneumonia is invariably of evil omen, and any considerable fall bodes disaster. When the arterial pressure, expressed in millimeters of mercury, falls below the pulse rate, expressed in beats per minute, the fact may be taken as a very bad sign; while the converse is equally true. Hare states that the work of the last few years in his wards show no fact more certain than this. To this matter attention was called in a valuable article which was published in the *Edinburgh Medical Journal* by G. A. Gorden. Gorden's results are entirely in accord with those of Gibson. In fifteen cases of pneumonia, which he studied, there was not a fatal result when the blood-pressure, expressed in

millimeters of mercury, was maintained above the pulse-rate per minute, and in only one case did it happen that recovery occurred after the blood-pressure was persistently below the pulse-rate. This patient got well by the immediate administration of strychnine, quinine, and strophanthus, which, to some extent, restored the normal ratio. Gorden adds: "It may be one's good fortune sometimes to save a case in which the blood-pressure is persistently below the pulse-rate, but these cases will be few."

In the past we have been accustomed to control therapeutic measures by the study of the first sound of the heart, the pulmonary second sound, and the aortic sound; by the results obtained by palpation of the radials, by the degree of dyspnea and amount of cyanosis and venous turgescence. It is not necessary to state that these observations should be continued, for they are most important. But the point which Hare emphasizes is that by the use of sphygmomanometer we can keep track of the patient from day to day, record his circulatory state, that any tendency to circulatory failure can be discovered and equally promptly combatted.

If the pressure remains approximately normal and the speed of the heart increases, this would seem to be indicative of disordered cardiac action caused by the direct effect of the disease upon that organ, and the heart should be treated as the chief factor of importance. But if, on the other hand, the pressure falls considerably and the pulse-rate rises simultaneously, then we have reason to believe that the vascular system is in need of stimulation, since the heart is endeavoring to fill relaxed vessels by increased activity. This view is strengthened if, on auscultating the heart, we find its first sound fairly strong. Under these conditions vascular tone rather than cardiac tone

is desired. If the sphygmomanometer shows the pulse to be slow and the pressure high, the nitrites are properly needed; but if, on the other hand, the pressure is low and the heart is beating rapidly in its endeavor to fill relaxed vessels, the nitrites are very deleterious, as by their use we greatly increase the very state which the tired heart is endeavoring to remedy by extra effort.

If at one time the pressure is high enough to cause the heart undue labor it may be reduced by one or more doses of one of the nitrites, and if the pressure falls it may be raised by one or more doses of a vascular stimulant of which I believe belladonna and atropine to be of the best, not because it greatly stimulates the vasometer center, but because it equalizes the distribution of the blood.

Iodides in High Blood-Pressure and Arteriosclerosis, by Matthew, M.D., *Edinburgh Medical Journal*, March, 1911:

1. Iodides have marked hypotensive action in high blood pressure, without arteriosclerosis.

2. In advanced arteriosclerosis, iodides have no hypotensive action.

3. Iodides act as vaso dilators.

4. To produce blueficial effects, 10 grs. K. I. should be initial dose. Increased if necessary.

5. Organic iodides in doses recommended contain too little I. to be efficient.

6. Sojodin (organic) to be substituted only when I. is contraindicated by digestive disorders.

*Medical Record.* A Brief Comparative Study of Heart Stimulants Used During Fevers with a Recommendation of the Preordial Compress, by Wm. Lee Secor, Ph.D., M.D.: The proper support of the heart during the course of a more or

less prolonged fever is a problem of the greatest importance. Heart stimulants or tonics in the case of various heart conditions indicating them, but uncomplicated by fever is a very different matter from the use of agents to support the heart during high fever. In these febrile conditions we usually find a rapid and weakened heart action so that the agent indicated would be one that would produce a slower, stronger heart's action, and if at the same time it stimulated the nutrition of the heart muscle it would approach the ideal.

Theoretically we have just such an agent in digitalis. It stimulates the vagus center and the inhibitory fibers of the vagi, thus producing a slower heart action and at the same time the force of the heart beat is increased by its stimulant action on the heart muscle and its intrinsic ganglia. Theoretically digitalis is a very satisfactory agent and would meet the various indications nicely, but in practice we find that digitalis is a very unreliable drug *when administered during high fever*, and we cannot depend upon it.

Strychnine is a drug used by many throughout the course of febrile conditions. It stimulates the heart's action, increasing the rate and force of the pulse. It also stimulates the cord and increases reflex activity. Its action on the nervous system would contraindicate it in conditions where the nervous system is already in a high state of irritability due to the action of toxins. Hare claims that it should never be used throughout the course of a prolonged fever and sounds a strong note of warning against its use in this manner. He claims that its place in these conditions is that of an emergency remedy only used in time of special need to bridge over a crisis. In this same class of emergency remedies we

would place nitroglycerine, ammonia, ether, etc.

The value of alcohol as a heart stimulant is very questionable, to say the least. Secor is of the opinion that it does no good and often a great deal of harm.

Caffeine is used by some, but its excitant action upon the brain would contraindicate it in cases where there is hyperexcitability, insomnia, or delirium.

Strophanthus may give satisfactory results, but when used alone is often unreliable, and such drugs as cactus and sparteine cannot be depended upon at all under these conditions.

The fact is that we have no drug that fully meets the requirements of a heart supporter during the course of fever. And in this connection Secor calls special attention to the precordial compress as a procedure giving results which meet the indications nicely.

In applying the precordial compress a rubber or aluminum coil, prepared for the purpose, is wrapped in a moist gauze and placed over the precordial area. Through this coil ice water is kept flowing continuously. A large-sized ice bag may be substituted for this coil, without detracting from the value of the procedure.

This cold application should be kept on continuously except that every three hours it should be replaced, for fifteen minutes, by a fomentation and brisk friction made over the area. This will prevent damage to the skin and maintain the proper reflex activity of the nerves.

We find that the effect upon the heart and circulation of a prolonged cold application to the precordial area is very similar to that produced by digitalis and the action is not altered by fever. The heart's action becomes slower and the rate of flow of blood through the body is diminished, but the force is maintained with some rise in arterial tension. If continued for some time

there is apparently an improvement in the nutrition of the heart muscle.

*Interstate Medical Journal.* Auto-serotherapy: the Therapeutic Use of the Patient's Own Serous Exudates and Transudates, by Isaac Ivan Lemann, M.D., of New Orleans: The procedure of autoserotherapy, in the treatment of collection of fluids in serous cavities, is an extremely simple one. It consists of reinjection, hypodermically, of small quantities (1 to 10 c.c.) of the serous exudates or transudates withdrawn from pleura or peritoneum. The aspirating needle instead of being withdrawn completely as usual after exploration is withdrawn only as far as the subdermal tissues, and the fluid previously aspirated is injected under the skin without a second puncture. The almost unanimous verdict, of all those who have employed it, is that the method is entirely without danger and usually without systemic reaction. Introduced by Gilbert in 1894 it has received attention from a number of French, Italian, German and Russian clinicians. Conclusions: In view of Lemann's limited experience with autoserotherapy he does not draw definite conclusions as to its value. The striking diuretic effect has not failed to impress him and he states that were there no other problem involved than this one it would be worth further investigation—namely: Why and how should the hypodermic injection of a patient's own serum stimulate diuresis? It is to be noted that the diuresis was caused in his two cases by the injection of a simple transudate (non-inflammatory). He is inclined, therefore, to attribute the beneficial effect to the increased output of urine. The original basis for autoserotherapy that the pleural exudates contain tuberculin would hold good only in tuberculosis cases. In cases of pleu-



risies due to other infections we might, in line with this theory, assume that the exudates contain suitable antibodies and that the good results might be due to these. In this connection the greater value of autogenous vaccines over heterogenous vaccines is to be remembered. Browning in a theoretical paper advocating the use of the patient's own serum (not obtained from exudates or transudates) points out that the procedure has a rational basis when explained by the side-chain theory. He instances the experience of V. Jez (who treated 10 cases of erysipelas with serum (5 to 10 c.c) obtained from blisters produced on the bodies of the patients themselves. This was said to be followed by a rise in temperature and a rapid improvement of all the symptoms.

Finally:

1. The method is simple and without danger.

2. There is still available only sufficient evidence as to its value and mode of action.

3. At least two problems are presented in its study:

- (a) Is it a reaction of immunity?

- (b) What causes the diuresis and how?

The Archives of Internal Medicine. The Use of Digipuratum in Heart-Disease, by Wm. F. Boos, M.D., L. H. Newburgh, M.D., and Henry K. Marx, M.D., Boston: In 1902 Fraenkel studied the strength of digitalis and strophanthus preparations obtainable in Heidelberg and the surrounding towns, that is, the leaf and seed preparations of practically one section. His material consisted of samples of the tincture and infusion of digitalis and the tincture of strophanthus from six different sources. As his unit of strength he used the minimum amount of each preparation which was necessary to pro-

duce systolic stoppage of the heart in 100 gm. of frog in one hour. As a result of tests Fraenkel found that the samples of the infusion of digitalis varied from 100 to 400 per cent. and those of the tincture of strophanthus showed variations in strength of from 100 to 6,000 per cent.

Buehrer studied the fluid extract of digitalis obtainable throughout one section of Switzerland and found the preparations to vary from 100 to 400 per cent. He also tested the fluid extract of two successive years from one apothecary and found the two preparations to show a difference of 200 per cent. in strength, both extracts being tested within a few days of their preparation.

Since the German apothecary is probably the most carefully trained apothecary in the world, these figures represent about the best results obtainable under the old system of unstandardized preparations. They will serve to explain in a great measure the almost proverbial uncertainty of digitalis medication in the past. This variation in strength of digitalis preparations, particularly of the tincture, which is undoubtedly the most reliable Galenic preparation, makes systematic treatment with unstandardized preparations an impossibility.

The use of the pure active principles of the digitalis group makes exact dosage possible, and therefore many French physicians, following the lead of Huchard, use pure crystalline digitoxin (digitaline Nativelle). In Germany, too, digitoxin (Schmiedeberg) and digitalin (digitalinum verum, Kiliani) are used to a limited extent. The therapeutic value of the active principles as compared with that of the leaf extracts was fully discussed at the nineteenth congress for internal medicine (Wiesbaden, 1901). At this congress many prominent clinicians spoke strongly in favor of the leaf extracts.

They asserted that neither digitalin nor digitoxin alone could produce the true digitalis effect obtainable from the leaf preparations.

Standardized leaf-powders prepared according to Focke's method may be used for accurate dosage. There is, however, another factor which often renders digitalis medication difficult and at times even impossible, namely, the tendency of the leaf preparations to produce in many patients gastro-enteric disturbances. Such disturbances are due, no doubt, in part if not wholly, to the presence in the leaves of digitonin, a constituent of the digitalis leaf which is pharmacologically a saponin, the saponins and sapotoxins being characterized by their irritant action on the gastro-enteric tract. It was with the hope of lessening this irritant action of digitalis that Gottlieb essayed by chemical means to remove the digitoxin from the leaf-extract. He succeeded in obtaining a product which is free not only from digitonin, but also from 85 per cent. of the other bulky and inactive matter which ordinarily passes into a leaf-extract. When Gottlieb compared the action of his purified product with that of the original leaves he found that he had recovered practically all the digitalin and digitoxin contained in the crude leaves. To this purified product Gottlieb gave the name of "digi-

tal<sup>is</sup> depuratum," or "digipuratum," for short.

Digipuratum is prepared as a powder having the constant strength of 8 frog units to each 0.1 gm. of the powder, corresponding to the average strength of a single dose (0.1 gm.) of the crude powdered leaves. For greater convenience of dosage digipuratum is usually dispensed in tablet form, each tablet containing 0.1 gm. of the powder. These tablets have an agreeable vanilla flavor and are taken readily by all patients.

Digipuratum has now been in use at the Massachusetts General Hospital for over a year and more than 180 cases of primary heart disease or secondary cardiac involvement have been treated with it. The effect on the urinary output has been very prompt in most instances. There was not a single case of vomiting or diarrhea; in fact, the vomiting of a number of cardiac patients at entrance was promptly stopped by digipuratum. It must be borne in mind, however, that digipuratum is a digitalis preparation, and that as such it must necessarily have a tendency to produce poisoning by cumulation. In the case of digipuratum this tendency is merely much diminished, so that it is possible by means of this drug to push digitalis therapy in a manner heretofore unknown.

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## CALIFORNIA HOSPITAL NURSES' ALUMNAE NOTES.

With the beginning of September our nurses are coming home from their vacations and taking up their work again, rested and refreshed both mentally and physically.

Mrs. Ensign and Miss Malone are on cases at the German Hospital, while Mrs. Durbin and Miss Hilton are on private cases outside.

Miss Simpson, '99, has gone to Victoria, B. C., with a patient and expects

to be gone two or three months.

Miss Louise Kent, '04, president of the Alumnae Association, is enjoying a much needed rest at Medford, Oregon, the guest of Miss Beeson, ex-'04, who is now Mrs. Carl Stanley. Miss Kent will spend a month with Mrs. Stanley and will then meet Miss Carolyn Arnold, '06, who is spending a month with her mother and sister in Portland, Oregon, and they will return together.



Mrs. Eva Durham, '00, is recovering from an attack of rheumatism. Mrs. Durham's son is in business in Los Angeles at present, and they are very happy to have a little home together.

Miss Annie Nagel, '04, expects to "prove up" on her claim near Fairburn, S. Dakato, about the first of December, and after a visit with relatives will return to Los Angeles. We shall all be delighted to welcome Miss Nagel to Los Angeles after her long absence.

Miss Helen Mills, '04, will spend a month with her father and sister visiting the old Mills' homestead in Canada and their many friends in that locality.

Born, August 21, 1911, to Dr. and Mrs. H. C. May, a daughter, Alice Elizabeth. Mrs. May was Miss Gertrude Hammond, '05.

Miss Damaris A. Beeman and Miss Alma M. Karlson, '08, who went to Salt Lake City immediately after their graduation, have returned and after a week or two at Balboa will take up work in Los Angeles. Both have applied for membership in the Alumnae Association.

Miss Alma Marie Adolphus, '10, and Miss Eva Rinehard and Miss Ethel Bennette, '11, have also applied for membership in the Alumnae Association. We hope all our graduates will realize the importance of joining the Alumnae Association and also the County Nurses' Association, and that they will make it a point to be present at the meetings and ready to take part in the discussions and to report interesting cases and new methods of work which come under their observation. No good nurse should complain that these meetings are not interesting until she has done everything in her power to make them interesting.

The committee of the Los Angeles County Nurses' Association for the Isabel Hampton Robb Memorial Fund, Miss Eva Johnson, '03, chairman, are asking every nurse in Los Angeles to either *raise* or *give* two dollars towards

this fund. We hope that every California Hospital graduate will feel that she owes it to herself and to her school to do this much, and to interest everyone she can in this fund, the income from which is to be used for scholarships to enable nurses to take special training for positions as teachers of nurses, and superintendents of hospitals and training schools.

There are three things which the nurses of Los Angeles should work for this year: Some adequate provision for sick nurses, an endowed scholarship for at least one of our Los Angeles hospitals, and an endowed tent for tuberculous nurses at the Barlow Sanatorium. What are *you* going to do to help?

Miss Mina Monte, '02, has taken charge of Dr. Bradbury's Hospital at San Luis Obispo. Dr. Bradbury's wife was Miss Amelia Stewart, '03.

Miss Isabel Gage, '05, is still in the California Hospital, but she is improving and hopes soon to be out.

Miss Josephine Peck, '11, who has been in the Barlow Sanatorium since last May is making rapid improvement and the doctors feel that she will make a permanent recovery. Miss Peck has received every kindness, both from the California Hospital and Class and from the Barlow Sanatorium.

Miss Dietrich, '12, California Hospital, was operated on for appendicitis last Saturday, September 2. She is doing nicely.

Miss Matilda Palm, '11, is temporary head nurse in the new building, California Hospital.

Two departments of the California Hospital, the 1st and 2nd east, and the 1st and 2nd main floors, are now in charge of the senior nurses of the hospital, who in turn are under the direct supervision of the superintendent and assistant superintendent. This will be invaluable training for the seniors and we hope they will realize their opportunity and make the most of it.



“hope of relief is the all pervading thought of the sick, and it is that ability of the attending physician to relieve suffering, which builds his reputation and with it his practice.

The first thought after diagnosis is the remedy most serviceable, and should it be a case requiring the application of continuous moist heat, as in inflammations, whether deep or superficial, antiphlogistine would, on account of its acknowledged uniformity of action and serviceability, be foremost in the professional mind.

Confidence in the therapeutic value of antiphlogistine in that wide range of cases wherein it is particularly indicated, could in no way be more forcibly expressed than by its almost universal adoption by the medical profession to whom it is exclusively introduced.

# TUBERCULOSIS AND HIGH ALTITUDES.

In the issue of the *Journal* for May 18, 1911, p. 727, we commented editorially on the expedition of British and American scientists to Pike's Peak to study the effects of high altitudes on blood-pressure and other cardio-vascular physiologic phenomena. In the preliminary report of these researches are made the following statements:

"As far as the work has gone we have been able to show that the lung cells themselves become better developed through work at these altitudes. This is of great importance in the question of tuberculosis. The total amount of hemoglobin in the blood of the human body is largely increased at these altitudes.

"The tests have also corroborated the discovery that the white corpuscles, which are able to destroy tubercle bacilli, have already increased in our blood by 50%. The importance of this discovery will hardly be appreciated by the public, but doctors all over the world will readily see that it is one of the most significant ever made in the fight against tuberculosis."

The importance of these observations should not be exaggerated. Though they have a definite bearing on the probable relation of high altitudes to the natural progress of tuberculosis, they are hardly likely to affect the treatment of phthisis as at present developed.—*Boston Medical and Surgical Journal*.

In 1880 there were the following graduates in the United States: Regular 2673, Homeopathic 380, Eclectic 188. In 1911 those who graduated were: Regular 4006, Homeopathic 152, Eclectic 110. In 1904 there were in the United States 1129 women medical students and 244 women graduated in medicine. In 1911 there were 680 women medical students and 159 women graduates. In the United

States there are 101 regular medical colleges, a decrease of 10 since last year; 12 Homeopathic colleges, a decrease of 1; 7 Eclectic, the same as last year. The total number of medical students (matriculants) in the United States for the year ending June 30, 1911, was 19,786, which was 8356 below the year 1904. See *Journal A. M. A.*

According to a recent report by Dr. Conrad Biesalski, of Berlin, there are 75,000 cripples in the German empire out of a population of 60,500,000. Over 50,000 of the cripples are in need of proper treatment. Dr. Biesalski states that in 15 per cent. of the cripples examined their deformity was due to tuberculosis of the bones and joints, and that there were 10,000 such children in great need of medical treatment. He advocates the establishment of seaside sanatoria for this latter class of cripples.

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# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, OCTOBER, 1911.

No. 10

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and DR. WILLIAM A. EDWARDS.

## THE NEED OF MORE THAN ONE DEGREE IN MEDICINE.

BY BOARDMAN REED, M.D., LOS ANGELES.

There is a real science of medicine, a noble, beneficent science and, founded upon it, a most valuable life-saving art. Like the science of astronomy it is not yet perfect or complete, but still growing—ever expanding and improving—as a result of constant investigation by its devotees, through the accumulation and classification of vast numbers of facts and principles which are of immense consequence to the health of mankind. It has already become the greatest of all the sciences with which the mind of man has ever grappled, considering the number and importance of its subordinate and cognate branches, and the continually increasing number of agents by which disease is being prevented and remedied. No one is now able to master it in its entirety within an ordinary lifetime.

The present standards of qualifications for doctors do not require the learning of nearly all of even the more important of these facts and principles. If they were much higher, the death-rate would

be lower and the amount of illness prevalent correspondingly less.

It has been proposed to have established one or more additional degrees in medicine besides that of M.D.—for example a degree to be called “Bachelor of Medicine” requiring at least as thorough a training as that now demanded by the best schools for the degree of M.D. and then the qualifications for the latter to be raised considerably higher. This would tempt many of the more ambitious students to seek the higher degree, and the better work they could then do in practice would elevate and advance the noble art of healing in every way.

If the medical colleges would make and keep the standards as high as they ought to be, such a plan would promise well. It would bring about a great improvement in the medical profession and result in a corresponding gain to the people. It would widen still more the gap between the possessors of the M.D. diploma and those who have taken any of



the short-cut routes to the privilege of trying to heal the sick.

But the experience of the past in this country shows that, with such a superabundance of medical colleges all competing against each other for students, there is a constant tendency in some quarters to lower the standard. It would be desirable, therefore, to have a new and yet higher degree which could only be granted by some entirely disinterested body of eminent teachers. Why not have an examining board made up of one representative from the medical department of each university in the United States? Such an examining body could be depended upon to enforce a high standard as rigorously as do those abroad and then, the new degree, say that of doctor of medical science (M.Sc.D.) would command the utmost respect in all parts of the world, as much at least as does now the title of M.D. given in Europe. Let a federal law be passed authorizing such a degree, the fees for examination to be paid by the applicants.

The candidates for this proposed new degree should have a good preliminary education, the equivalent of a four years' college course. The medical curriculum should cover not less than five years including two years spent in clinical work under practical instruction, one year of which should be in a general hospital. The instruction and technical training should be made so broad, comprehensive and exacting that only men with keen, active minds and retentive memories could hope to achieve this highest medical degree. It ought to be limited intentionally to men of marked ability, since no others could cover the immensely wide field of modern medicine adequately. Doctors thus endowed and qualified would naturally be occupied chiefly as consultants and would be pre-eminently fitted to assist attending physicians in reaching a correct diagnosis and in advising them then under what spe-

cial line of treatment their difficult cases could be most hopefully placed.

These doctors of medical science in their role as consultants would need to be masters of both physical and laboratory diagnosis and, as to therapy, should know the effects, dangers and limitations of all the really valuable remedies and special methods from whatever source, without an unconquerable prejudice even against any that may have been over-exploited by the sects or pathies. They should know what cases need hydrotherapy or other mechanical or physical methods and what would be most likely to improve with the help of psychotherapy. Above all they should understand the all-powerful influence of diet, when to push feeding, when and how to limit it and when a short fast would do most good; nor should they be ignorant of the effects obtainable by the proper appointment of rest and exercise in certain conditions of chronically impaired health.

Various new methods of examining and treating the spine have been much discussed lately since the osteopaths have made such a hobby of spinal lesions. Not only the latter but also the mechanoneural therapists and the chiropractors have been trying to found new schools of practice on the narrow basis of certain manipulations along the spine and in other parts. The naturopaths seem to have added some of these manipulations to the sensible every day teachings concerning diet, water, sunshine, fresh air and exercise which every respectably taught and honest physician now advises for his patients.

Dr. Albert Abrams, of San Francisco, has made a special study of the relations of the vertebrae to the organs generally and has written an excellent book\* on the subject.

There are chronic invalids who need special treatment addressed to their

\*Spondylotherapy. The Philopolis Press, San Francisco, 1919.

spines, whether it be by counter-irritation, electricity, mechanical vibration or by manual methods and our proposed doctors of medical science should know how to direct them or their usual medical attendants where to get it in the best form. In the third edition of my work on the Diseases of the Stomach and Intestines, recently issued, I have proposed that masseurs should be trained in the correction and treatment of displaced and tender vertebrae under the special direction of competent, all-round physicians, in addition to the similar and no less important work they now do. This would avoid the abuse of manual treatment by practitioners who do not know how to do anything else and hold forth the method as a cure-all.

The more altruistic and public spirited members of the medical profession who are striving to have laws enacted which would ensure more thoroughness in the education and technical training of persons entrusted as medical practitioners with the lives and health of the people, meet with bitter antagonism and even scurrilous abuse from certain elements in the public which they are endeavoring to protect. These elements organized and financed by selfish interests, especially the nostrum makers and venders, with help from some of the sectarian practitioners, would throw down the bars so that ignoramuses or vicious quacks totally devoid of any semblance of medical education, could be allowed to practice medicine. They have also of late been opposing with all their might, fighting tooth and nail, any improvement or extension of the hygienic defences of the nation against epidemics and the manifold dangers which are always threatening the health of the people.

Is it not time that the medical profession, or at least, that part of it which believes there is a science of medicine, to be mastered and the only part of it which seems to approve of hygienic measures, public sanitation, quarantine

regulations, etc.—that is, unselfish work which lessens the business of all doctors—is it not time that this class of medical men should make an earnest organized effort toward educating the people themselves in hygienic and medical matters? In this way we could counteract directly the propaganda against progress in hygiene and scientific medicine now being carried on by the nostrum dealers, the fakers and all of that ilk together with some of the supposedly respectable adherents of the other so-called medical schools.

In their fight against a proper sanitary system and all laws imposing regulations or restrictions that tend to prevent unqualified persons from meddling with the lives and health of the people, the interests which center in the nostrum trade, have with them naturally the whole unprincipled tribe of charlatans, fake specialists and medical advertisers. In some manner, also, they have obtained the backing of a large section of the press. The Christian Scientists, too, not content with lending their help to this unholy alliance, are publishing for popular consumption pamphlets, books and even special newspapers to vaunt their alleged cures and condemn every form of rational medical treatment, but omit always any mention of their innumerable failures. We would not resort to any such methods for obtaining business, nor do we need to. Indeed, one of the arguments brought against the bills in Congress to establish a national department of health was the assertion that the "allopathic doctors" would fill the offices because they control an overwhelming majority of the medical

But when we think of the many thousands of persons constantly being misled to their death or great injury through ignorance, and especially the untold number of little children who must be sacrificed annually to false teachings, it does seem that, in the interests of common humanity, if not in the cause of truth and science, we ought as a pro-

fession, to go even a little out of our way to do some popular teaching ourselves.

If the laity were better instructed in the elementary principles of hygiene and medicine, they could not be humbugged so easily as at present, but would themselves insist upon a higher standard of qualifications for all practitioners and especially upon the most complete hygienic and sanitary protective measures which the states and general government could be induced to establish.

Then, with a fully informed laity and at least two grades of qualified practitioners, the members of one of them holding diplomas guaranteeing unquestionable ability and thorough medical

training, there would be much less need of government medical examining boards to protect the public against incompetents and ignorant pretenders in the guise of healers.

P. S.—The foregoing plea for a campaign of instruction in hygiene and public sanitation was written before the announcement was made of the extraordinary program of popular lectures, demonstrations, etc., on these subjects given in Los Angeles during the week of the A. M. A. meeting. Let the good work of teaching the vast importance of preventive medicine go on. It is a grand, life-saving movement and will do an incalculable amount of good.

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## TRACHOMA.\*

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BY J. S. PERKINS, M.D., GLOBE, ARIZONA.

Stellwag describes it as follows: "This disease is characterized by small prominences, uneven in shape, thickly crowded together in a vascular conjunctiva. They are sometimes hypertrophied papillae and again diffused vascular excrescences arranged in rows. They are sometimes of the same color as the conjunctiva and not much elevated above the surface, but again they are prominent and resemble the spawn of fish." I think Stellwag covers the ground in his description of all the forms of Trachoma.

It is generally a chronic disease resulting from a conjunctivitis that has spent its course. The acute attack of conjunctivitis is often forgotten and later when Trachoma is discovered it is believed to have originated without any antecedent cause. Sometimes it appears after a purulent inflammation and persists for several weeks even under good treatment. The roughness of the conjunctiva following acute inflamma-

tions usually subsides in a short time under proper treatment, but when chronic Trachoma develops the case is different.

Stellwag classifies it as follows: 1, pale granular; 2, Papillary; 3, mixed; 4, diffuse.

In the granular form spawnlike bodies filled with blood vessels cover the conjunctiva and the swelling is so great that the everted lid looks like a large red tumor.

The papillary variety is confined to the papillary region of the conjunctiva; the tarsal conjunctiva is covered with small papillae.

In the mixed variety the papillary excrescences are very prominent, but they do not have the spawnlike appearance. It is the most common variety.

The diffuse variety has immense granulations separated from each other by deep canals. They are velvety in appearance and resemble the cock's comb.

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\*Read before the Gila County Medical Society, July 17, 1911.



## TREATMENT.

Inasmuch as it exists in great degrees of severity it is no easy task to outline a plan of treatment that will apply to all cases.

If the case is attended by intolerable photophobia and lachrymation, and especially if Pannus has supervened, then the patient should be put into a hospital with an attendant in charge, where good personal service can be secured. Hot water should be applied six to eight times a day for fifteen or twenty minutes at a time. Absorbent cotton should be dipped into boiling water and applied.

Atropine 2 grs. to the oz. should be instilled three times a day.

If the atropine does not subdue the protophobia, try cocaine 10 grs. to the oz. five times a day.

The photophobia and lachrymation usually subside under this treatment and the patient is ready for more radical measures.

## JEQUIRITY.

I know you will say old fashioned when the word Jequirity is mentioned, but I have used it in about 150 cases of Trachoma. I have not used it at all in later years. But years ago I used it in the form of a powder sprinkled on the lids, and in solution, the beans being macerated in a mortar with water.

As soon as the membrane formed the patients were put to bed and ice cloths applied to eyes. This usually effected a cure and never in a single instance did I see the cornea injured. Jequirity, however, has given way to Expression.

## EXPRESSION.

Place the patient on the operating table, clean the face well with soap and water and then some antiseptic, as bichloride 1 to 10,000. Then put the patient to sleep or use local anesthesia in the form of cocaine 10%. Put in a few drops and in four minutes put in a few drops more and in four minutes a few drops more, then the patient is

ready for operation. Use a Noyes, or Knapps, roller forceps, or both, and seize the loose rolls of the conjunctiva with the forceps, and express the contents. Put the fornix on the stretch and go over the lids thoroughly and be sure to examine the lower lids to see if they also are covered with granules—sometimes they are—when the operation is completed. Wash out the eyes with bichloride 1 to 10,000 and send the patient to a dark room and apply ice cloths for ten or fifteen minutes at a time eight or ten times during the rest of the day. The reaction as a rule is slight and in three days the patient is ready for medical treatment.

What treatment is to be preferred? After experimenting with the various remedies in about 2000 cases, I have made up my mind that the most good and least harm can be derived from the sulphate of copper pencil, lightly applied once a day, washed off with water, and the ointment of the yellow oxide of mercury 1 to 2% applied once a day and the lid massaged after each application. Keep this up indefinitely and stop when the lids are smooth.

I wish to caution against Nitrate of Silver and over treatment. These destroy the subconjunctival tissue which is replaced by scar tissue and the batting of the lids whets the epithelium of the cornea and permanently injures the eye. Sometimes it is necessary to repeat the operation of expression, and in using local anesthesia it is sometimes necessary to inject the cocaine into the lid with a needle. In expressing in about 700 cases the writer has seen no unfavorable results.

## PROPHYLAXIS.

The disease is so extremely contagious that every case should be carefully quarantined against healthy eyes. The greatest care should be exercised to see that wash basins, towels and sleeping rooms are carefully guarded against persons infected with Tra-

choma; and all children in our public schools and institutions should be examined for Trachoma by a physician, and all infected cases separated until well. Children infected with Trachoma should not be allowed to play with those that are well, for in handling toys, dolls and playthings it is only a matter of a very short time until all are infected. *75% or 80% of the South-western Indians have Trachoma, and all white children who play with the Indians are infected*, and I make this statement after a prolonged and thorough personal investigation.

In a series of 240 subjects examined by me this spring, 85% had Trachoma and three cases had Pannus. Pannus is one of the worst complications of the disease and unless properly and persistently treated the patient will go blind. Fortunately, however, as the

primary disease yields to treatment, the Pannus disappears. Trachoma then is a loathsome disease. Thousands of cases of Astigmatism and impaired vision and many cases of blindness follow in its trail. It is insidiously at work in towns and cities in our own country. It prevails in epidemic form in the West Indies and in Mexico and among the North American Indians, rendering its victims in many instances objects of public charity and at the same time carriers of disease.

With this menace at our doors let us not forget to do our duty in the matter and examine all children in our public schools and institutions for Trachoma, separating those that have the disease. Simple lectures to the school children on prophylaxis is especially recommended.

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## REPORT OF A CASE OF HOOK-WORM DISEASE IN ARIZONA.

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FRANCIS E. SHINE, M.D., CHIEF SURGEON OF THE EL PASO & SOUTHWESTERN RAILROAD AND COPPER QUEEN CONSOLIDATED MINING COMPANY, BISBEE, ARIZONA.

The case which is here reported was discovered during convalescence from an operation for Ischio-rectal abscess.

C. P., age 33, married, mining engineer, was admitted to the Copper Queen Hospital June 14, 1911, with a large ischio-rectal abscess. This followed an operation in California for a fistula which never healed properly. The wound following the operation healed kindly, and he left the hospital July 10th.

On his admission it was noted that he was very anæmic and emaciated, but this was attributed to his local condition; examination of his chest was negative.

On August 23rd, 1911, the patient again came to Bisbee complaining of shortness of breath, great weakness, tachycardia and palpitation. Rectal ex-

amination showed a healthy scar. On advice he remained in the hospital for observation and examination as his appearance was that of pernicious anaemia.

The history elicited on his second admission to the hospital was as follows: Born in Oakland, Cal., and lived in that state until he went to college. Had very weak digestion when a child and was never very sturdy; never had ground itch. Attended the Michigan School of Mines, and while a student there had a skin eruption of both axillae and serotum, which was pronounced by his physician as eczema.

After graduating in 1902 took up his residence in Tombstone, Ariz., where he lived until 1905. From 1905 to 1908 lived in Durango, Mexico. Part of this time was spent in high altitudes and the

remainder at the coast. In 1907 while living in an old adobe house, with no floors, he developed a general itch which lasted about a week and was cured by carbolic baths. Between 1908 and 1910 he lived in California. In 1910 again returned to Mexico and while there had a severe attack of general abdominal pain, meteorism, and blood and mucus in his stools, but no diarrhoea.

The blood examination made the day after his admission showed haemoglobin 40%. Red blood cells 2,400,000, whites 11,600. The smear showed the red blood cells were of average size, marked poikilocytosis; the central discs were much increased in size and many of the cells

presented the appearance of rings. The cells were all pale in color, no normoblast or megaloblast, showing a typical secondary anaemia. The stools varied greatly in color, being a pale yellow, greenish and tarry at times. The microscopic examinations of stools showed a large number of typical hook-worm ova. After taking thymol several of the worms were found.

September 12th patient returned to the hospital for the second course of thymol. Red blood cells 3,000,000; white blood cells 12,200; haemoglobin index 65%. Worms were found in the stool. He will receive the treatment and again return in a week or ten days for another.

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## SO-CALLED "ASEPTIC WOUND FEVER" WITH DELIRIUM(?)

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BY REXWALD BROWN, M.D., SANTA BARBARA, CAL.

Case history: Mrs. J. A. S. was brought to the Cottage Hospital April 30th last from the Ojai Valley. Patient was 33 years of age—previous illness negative. She had had three confinements, the last May 22, 1910—no miscarriages. Her periods had been regular from June, 1910, to January, 1911, inclusive. The February period was missed. There was a hemorrhagic flow beginning March 9th, lasting two weeks, and accompanied by crampy pelvic pains, a condition never before experienced. Patient then felt entirely well until April 16th, on which day she suffered, while at work, a most sudden and severe lancinating pain in right side of pelvis, which compelled her to go to bed. Pain in right side of pelvis was constantly present from then on, with many intense exacerbations lasting from a few minutes to several hours. On April 28th flow reappeared, ceasing again on the 29th when pain more severe than any previously suffered, brought patient into a condition bordering on collapse. In this state she reached the hospital.

The history suggested at once a ruptured ectopic gestation, and a vaginal examination revealing a large mass in pelvic cavity confirmed the belief. A laparotomy was done shortly, and a pregnancy was found to have been present in the right tube, the foetus having been extended through the fimbriae. An enormous hematoma filled the Douglascul-de-sac. The right tube was removed, the blood clots sponged out, and the wound closed without drainage.

Six hours after operation the temperature was 100° and the pulse 80. The temperature gradually ascended without intermissions reaching 104.4° on May 4th. Pulse ranged most of this time below 100, reaching 108 once. Absolutely no pain was complained of, and patient's general condition seemed good. Bowels moved regularly. The wound was examined and found clean. On May 5th temperature was above 104° all day, reaching 104.6°. Highest pulse was 98. Patient became a trifle delirious toward evening. It was thought possible retained decidua in uterus might be re-



sponsible for the temperature, and uterus was cleaned with dull curette, much decidua coming away. At this time no mass could be felt in pelvic, suggestive of abscess. There was no effect upon the temperature which reached 105° on May 7th. Patient had been stupid and drowsy for two days and now became delirious. Pulse rose to 120. For the next week the temperature was intermittent, running from 99.4° to 103°—drowsiness or low delirium present much of the time—pulse usually below 100. Appetite of patient remained excellent, and she consumed great quantities of buttermilk, caring for little else. From May 15th to June 12th an intermittent and remittent type of fever persisted—temperature occasionally reached normal, and would be perhaps 103° a few hours later. On June 12th temperature was normal all day and did not again rise. Patient was discharged June 24th.

The post operative complication was very probably a case of so-called "Aseptic Wound Fever." It was, however, of unusual duration, and of marked elevation, causing much anxiety. The con-

dition was doubtless dependent on much blood clot still left in the abdominal cavity at the completion of the operation. Practically nothing is known of the pathogenesis of aseptic wound fever. It is likely that the thermogenetic centers are disturbed by noxious proteins absorbed from disorganizing clots.

This case serves to teach a lesson concerning the management of ruptured tubal pregnancy, a lesson perhaps not unknown, but which will bear reiteration. It is this—before closing the abdominal wound, the peritoneal cavity should be thoroughly flushed with normal salt solution, thus loosening and washing out all the blood clots.

There is no conflict here with the teaching against irrigation of the abdomen in septic conditions. In the latter case ineffective material is carried to all parts of the peritoneum, inviting extension of the peritonitis, and hence non-surgical, while in the former the flushing frees the peritoneal cavity of non-septic foreign matter whose presence, if closed in, may lead to grave changes in metabolism.

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## HYGIENIC ADVANTAGES OF THE AUTOMOBILE OVER THE HORSE.

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BY WALTER LINDLEY, M.D., OF LOS ANGELES, AND TWENTY-FOUR OTHER CALIFORNIA PHYSICIANS.

The advantage gained in time by the use of the automobile instead of the horse is so remarkable that in the mind of people generally, the hygienic advantages are overshadowed.

Believing that this was a good point to consider, I asked, as one of the questions under Hygiene, at the recent meeting of the California State Board of Medical Examiners this question:

"What are the hygienic advantages of the automobile over the horse at the home and in the street?"

The answers were generally very intelligent and twenty-four of them taken at random are included in this paper. The following are the main points brought out in these answers:

1. The manure pile at the stable and the droppings on the streets are prolific breeding places for flies.
2. The desiccated droppings of horses on the street carry dangerous bacilli.
3. The manure piles and the grain and hay of the stables are choice breeding places for rats and mice.

4. Pollution of wells from the stables.

5. The horse is the disseminator of the tetanus bacillus. \*Park and Williams say: The tetanus bacillus occurs in nature as a common inhabitant of the soil, at least in places where manure has been thrown, being abundant in many places, not only in the superficial layers, but also at the depth of several feet.

It has been found in many different substances and places—in hay dust, in horse and cow manure—its normal habitat is the intestine of the herbivora \* \* \*, in the dust from horses' hair. \* \* \* Tetanus bacilli are found in the intestines of about 15 per cent. of horses and calves living in the vicinity of New York City.

6. Danger of horses communicating glanders to man. Glanders occurs as a natural infection only in horses and asses. I saw a fatal case of glanders in a man here in Los Angeles.

7. Actinomycosis is another disease that is mentioned in some of these answers as liable to be communicated from the horse to man. While it is well to mention such possibility yet such means of infection are very rare.

8. Several of the answers mention the additional fresh air and sunshine enjoyed by those who have automobiles

Answer of Physician No. 1: Automobiles do not have glanders, actinomycosis, or other diseases transmitted to man from the horse. The excreta of the automobile, while often more noisome, is less constant, less harmful and more easily disposed of. The excreta of horses is a favorite breeding place for flies, the most common spreader of infectious diseases. Were there no horses on the streets the White Wing brigade would be greatly

diminished and the cost of keeping the streets clean diminished while the public health would not be jeopardized by the dessicated manure which carries disease just as all dust does.

Answer of Physician No. 2: If there were no horses allowed upon the streets it would do away with feces drying and blowing about in the dust carrying bacilli of various kinds, one of the most important of which is tetanus. It is about manure heaps that flies find the very best breeding places. In the use of automobiles the above drawbacks are removed. Owners of automobiles and families are likely to spend a greater part of their time out of doors which is beneficial from hygienic standpoint.

Answer of Physician No. 3: Horses may be a menace to health in that some of their diseases may be communicated to man. Their droppings on the streets or around the home cause more or less odor, and when dry may be carried by the wind as dust and by its contained bacteria cause infection. The accumulation of manure tends to harbor flies which may spread infection and release unpleasant odors, and stables are not usually sanitary. Automobiles have none of these disadvantages.

Answer of Physician No. 4: At the home horses are too often kept in stables close to the house so that breeding of flies and bacteria as well as the production of bad odors is increased. Wells in the neighborhood are likely to be contaminated. Automobiles require less room, and any oil and grease dropped about tends to act as a disinfectant rather than as a medium of growth of flies and bacteria. Wells are not contaminated.

Answer of Physician No. 5: The greatest hygienic advantage of the automobile is the prevention of dirt. There is less tendency for flies to

\*Pathogenic Micro Organisms, Fourth Edition, Lea & Febiger, New York and Philadelphia, 1910.

accumulate. We have less odor deleterious to mankind. There is no manure or urine to attract the flies. There are no germs about an automobile that might be present in horses. There is less noise.

Answer of Physician No. 6: Automobiles keep one in the open air without the heat and animal disease carrying odors or germs from the horses being blown into their clothes and persons as they go.

Answer of Physician No. 7: Automobiles are of great hygienic advantage over horses especially at home on account of there being no necessity to have manure and urine taken care of. Flies tend to collect around horses. Horses are susceptible to diseases communicable to man. The horse causes more dust than automobiles.

Answer of Physician No. 8: The advantages of autos over horses. The latter has breeding places for flies, and if the stable is not continually looked to, the odor becomes offensive. On the streets of the city the trouble is much the same.

Answer of Physician No. 9: The automobile can be kept much cleaner and if kept clean is not a breeding place for insects or germs. The horse scatters manure over the city containing tetanus germs, and the manure is a breeding place for flies and germs. The manure dust is a nuisance. The horse may be infected with actinimycosis or other diseases and carry any infection in the hair.

Answer of Physician No. 10: An automobile in place of a horse at the home excludes the possibility of manure collecting which if not cared for in the best possible manner would become a breeding place for flies and the source of fowl<sup>+</sup> odors. The storing of hay would encourage the habitation of that

place with mice and rats. The automobile does away with all that, and the possibility of transmission of disease by flies is minimized.

In the city the automobile replacing the horse excludes the scattering of manure over the street and thus attracting flies and other insects besides its drying and being carried in the dust to be breathed by people. Also by eliminating the horse by the automobile, glanders becomes less of a possibility.

Answer of Physician No. 11: Near the homes, generally in the same yard there is no stable with its accompaniment of *dust* from the hay or *foul odors* or *flies* from careless care of the stable or disposal of the refuse. The streets, too, can be more cleanly and attract fewer flies when automobiles are used. Tetanus organisms are inhabitants of the intestinal tract of the horse. The spread of glanders and the actinomycosis, too, would be lessened. Carelessly kept stables are breeding places for rats, mice and other vermin. Often troughs are not kept clean and afford breeding places for mosquitoes.

Answer of Physician No. 12: Automobiles obviate:

(a) A pile of manure with possibility of nitrogenous putrefaction products or bacteria penetrating into the well or otherwise contaminating and favoring presence of tetanus and malignant edema germs.

(b) Dust produced by hay and feed.

(c) Swarms of flies about the stable to carry infection.

(d) Possibility of direct contagion, e. g., malignant pustule, echinococcus.

Answer of Physician No. 13: An automobile has an odor all its own, but it does not cause disease, rather it *prevents* disease, makes no mass of excreta for flies to breed in. The horse and cow manure pile is the perfect incubator for flies and fleas. The great germ carriers.

<sup>+</sup>The writer here doubtless means to refer to the fact that fowls are frequently found scratching for a living in the barn yard.



Answer of Physician No. 14: The automobiles are preferable than horses because in the houses we will not be compelled to have special places for horses which always must be dirty and we have the formation of different gases spreading through the house. In the city we have not the street spoiled by their excretions which bring not unusually the bacillus tetanus.

Answer of Physician No. 15: With the automobile in the city you go more and get out into the country which is hard to do with a horse. You go faster and the dust does not hang around you like it does a horse. When driving a horse the hair, nasal secretions and excreta from lungs, along with dried sweat and epithelium are blown on you carrying filth and disease. The auto saves the dejecta that a horse deposits on streets, in barns, etc., so it stops one of the main places for the breeding of flies.

Answer of Physician No. 16: Automobiles require better roads which has lead to much improvement along that line; so less dust and dirt in air. 2. Stables are usually a great attraction for flies and bacteria multiplying there. 3. Streets are easier kept clean where automobiles are used. 4. Diseases as glanders which are transmitted from horse to man, are removed when automobiles are used.

Answer of Physician No. 17: At home the auto is more sanitary, for the excrements of the horse are fertile sources for the development of all kinds of bacteria, produces a disagreeable odor about the barn and premises where the manure is stored or hauled away. If the water supply is a home well, there is a source of pollution in the discharges of the horses, dust blowing from the barn and surroundings may be laden with germs. It also furnishes a media for bacterial development for flies and insects to carry. In the city the horses

standing on the streets furnish a means of pollution as the discharge dries and the wind blows it into the faces of passers-by while none of these things happen from the auto.

Answer of Physician No. 18: At home: Disease — Automobiles can't carry disease; horses are disease carriers. Refuse — Automobiles, none; horses, large amount. Flies — Automobiles do not attract flies; horses attract flies which are disease carriers.

Answer of Physician No. 19: Having an automobile instead of a horse does away with the barnyard odor, filth, excreta, etc., which in turn does away with a great many flies both at home and in the city. In keeping a horse at home if great care is not taken in keeping everything clean, looking after the manure, keeping the stable yards and barns clean, it draws an innumerable number of flies which are apt to carry germs producing disease. The water supply might become contaminated from drainage off of the barnyards, during rains if the water supply is from wells. Using automobiles in the down town districts, makes less cleaning necessary, the process of which causes more or less dust, which is apt to contain many bacteria. The flies and insects are much less in number also.

Answer of Physician No. 20: They do not attract flies, are less noisy, do not contaminate water, are very much cleaner, stay where they are put, therefore do not worry you at night or cause loss of sleep which is deleterious to health.

Answer of Physician No. 21: Does away with barn and barnyard refuse. The barnyard is a splendid place for micro-organisms and is itself a stock culture of various organisms. 2. The water supply is less liable to contamination. 3. The barnyard and horse itself are great attractions for flies. Flies are

one of the most common carriers of disease. 4. In the city the automobile is far more hygienic for it does away with the excreta from the horse which is a constant attraction for flies and a stock culture of organisms which when dry are blown into stores, markets and fruit stands by millions. 5. The automobile is cleaner in every way from the standpoint of infection.

Answer of Physician No. 22: Automobiles do not have any excreta like a horse, consequently the stable with all its manure, with its foul odor and breeding places for flies and other insects and bacteria are done away with. There is not so much filth. The danger from certain diseases that lurk in the horse and its excreta are lessened. As in tetanus, the bacilli live in the manure, and glanders, which is a horse disease, is kept away from the people, when they don't come in contact with horses. The stable refuse in the city, which always has to be carted away and in doing so spreads germs, is done away with. Gases and vapors that arise from decomposing excreta and permeate the air, polluting it, are avoided.

Answer of Physician No. 23: Home. Lessened number of flies which breed in the offal and carry typhoid. Lack of unpleasant odors from the stable. Such odors cause no disease, merely unpleasant. Possible that careless use of watering trough may increase mosquitoes and so malaria and yellow fever. Rarely actinomycosis is transmitted from horse to man. Increased liability to rats and so plague. City: All points mentioned above. Cleanliness of streets from offal and of air from dried refuse is the great advantage.

Answer of Physician No. 24: With automobiles you avoid the dust, dirt and disagreeable odor that comes from currying horses, also the stench of the barnyard and the flies which the presence of the horse and his excreta attract.

In the city, they do not shy nor run away. They stand without tying. The physician is less likely to carry infection to his patient than he would be if he rode behind a horse. In the city especially the excreta of the horse is very undesirable and unhygienic.

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## MODERN HOSPITALS AND MEDICAL EDUCATION.\*

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BY CHRISTIAN R. HOLMES, M.D., CINCINNATI.

It cannot be denied that the ill health of the community is a source of profit to the doctor, and, without violence to the morals of modern commercialism, the medical profession could have exploited this rich field. The ignorance of the public about medical matters, but for the preventive teaching of the medical profession itself, would have allowed many sources of disease and of death to continue in existence. Faithful, however, to the ideals that are embodied in the Hippocratic Oath and that have come down to us through the great Arabian

physicians of the Middle Ages, the modern medical profession imposes the obligations of that remarkable document upon all its members. Rigidly trained to a high conception of duty, the physician is not content merely with curing patients; but he searches for the cause of the disease, points out how it is contracted, and labors unceasingly to induce the community to destroy the source of that particular contagion. This conquest of disease, this deliberate removal of the professional source of profit, began in mediæval times with the demon-

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\*Abstract from address delivered at the University of Cincinnati.

stration that evil spirits had nothing to do with the illness of mankind. The first historic demonstration, however, came when Jenner in 1798 introduced vaccination to stay the ravages of small-pox. In the early part of the nineteenth century the medical profession insistently pointed out infected water supply as a prolific source of disease, and physicians led then, as they are leading today, in the fight against the pollution of streams. Pasteur, the French chemist, collaborating with physicians and veterinarians in the study of disease, formulated what is popularly known as the "germ theory," and by his investigations proved the preventable nature of many diseases. Dr. Robert Koch immortalized himself by his discovery of the bacillus tuberculosis and pointed the way for the subjugation of cholera, with the result that this plague, once a dreadful scourge both of Europe and America, has now practically been banished from these two countries. Similar investigations and preventive teaching have led to the practical extinction of typhus, once endemic in England and on the continent of Europe, and epidemic at intervals in America. This filth disease has disappeared so completely with the cleansing of city streets, jails, and ships that the present generation of American physicians have scarcely ever seen a case.

The physician leads in the fight against the great white plague and gives his time and his best efforts to aid his fellow-men—his possible patients—to avoid consumption. The medical profession is ever waging a relentless warfare against the dreaded diseases of childhood, to-wit: measles, scarlet and cerebro-spinal fever, and diphtheria; the discovery of the serum therapy has reduced the mortality of diphtheria from 40% to 6%. I wonder how many of the laity have ever stopped to think that by this discovery alone the lives

of thousands of their children are saved each year in this country alone.

I have mentioned a few of these facts to you as an evidence of the good faith of the profession and as a good reason why, when the medical profession asks that the people assist in its unselfish struggle against disease and in its efforts to increase the efficiency and the happiness of the community, that the community *show its appreciation by the establishment of first-class hospitals, clinics, medical schools, and research laboratories.*

While the field of research in medicine does not yield direct profit in dollars and cents, the world can and does draw from the laboratory of the research worker knowledge which, passing almost duty free into the possession of the community, can actually be estimated in *terms of millions of dollars.* Contemplate for one moment the labors of the four American army surgeons, Reed, Lazear, Carroll, and Agramonte, who were given a commission by the government to investigate yellow fever. As far as the interests of humanity were concerned, the results of the labors of the commission were a monumental success. Monumental indeed! for three of the commissioners are dead, a sacrifice to this dread disease. The researches of these scientists, resulting in the abolition of yellow fever from the Atlantic, the Gulf and Mississippi ports of the United States, the Island of Cuba, and the Isthmus of Panama, saved to the merchants and manufacturers of our country millions of dollars, and the vicarious sacrifice and martyrdom of these heroic men warded off disease and death from thousands of our people. Think how much would be saved to us in the lives of those we love and in material wealth if tomorrow there should come to us from some research laboratory the knowledge necessary to stamp out typhoid fever, cancer, or,



above all, tuberculosis. Is there any community so poor that it could not afford to pay for such knowledge? I think not! A plant of this kind is a necessity to a progressive modern city. The capital invested in such an undertaking returns itself many times a year to the community making the investment.

The first object of a public hospital is the treatment of the sick poor. To accomplish this end it needs both wards and dispensaries, for while the seriously sick or injured are admitted to the wards of the hospital, it must provide dispensaries for a large number of persons who need treatment for minor medical and surgical ailments, where they can come at stated hours for examination, treatment, and medicine. The second object of a public hospital is the training of physicians and nurses to administer to the wants of the sick in the community at large. Every municipal hospital, therefore, should have connected with it an out-door department.

This second purpose of the hospital leads me to the subject of medical schools, their development, and maintenance; a subject so ably presented by Dr. W. W. Keen, of Philadelphia, that I shall quote some of his figures and statements. "In 1894 charitable gifts in the United States amounted to \$80,000,000; only a small portion of this charity, however, was bestowed upon *medical schools*; the principal amount was given to colleges, theological schools, hospitals, museums, and libraries. The cause of this neglect, I think, has been chiefly the vicious method by which our medical schools were formerly conducted. They were practically private enterprises, joint-stock companies, organized for the benefit of the faculties. As Professor Bowditch has said, one might as well expect the public to endow a cotton-mill as to endow such a school. The day

of these institutions, happily, however, is nearly past, and many schools of medicine are now governed by trustees, a body of men wholly apart from the faculties, who manage the affairs of the medical school just as they would those of a university, taking control of the income and expenditures of the school, placing the professors and other teachers upon salaries, and conducting the affairs of the institution on broad lines of educational progress. These modern medical schools, like the modern college, technical school, and university, need liberal endowment. As a consequence of the broadening and lengthening of the medical course of study, the cost of medical education has enormously increased, and the fees of the students, which can scarcely be raised beyond the present amount, are wholly inadequate for providing a proper medical education. 'There is no branch of education,' says President Eliot of Harvard, 'which more needs endowment.' Medical education is very expensive, because it has become, in the main, individual instruction.' The great difference between the modern method of teaching medicine and the older method consists in *laboratory and clinical instruction*, both of which must be individual. Laboratories are very costly, and the number of laboratories required in a fully equipped medical school is astonishing. Such a school must have a dissecting-room—the anatomical laboratory—and along with this a laboratory of histology, and another which may be combined with it, a laboratory of embryology; a physiological laboratory, in which each student will become familiar with physiological methods and be trained in exact and careful observation; a laboratory of chemistry and, especially, a laboratory of physiological chemistry; in the department of materia medica, a laboratory of pharmacy, in which the student will learn

the essentials of pharmacy; a laboratory of pharmacology, in which he will learn the action of drugs and be prepared rightly to use them; in pathology, a laboratory of morbid anatomy, a laboratory of bacteriology, and a laboratory of hygiene. The mere statement of this catalogue of eleven laboratories will enforce the fact that enormous expense must be incurred, not only for their installation, but also for their running expenses. To show what one university abroad does, Professor Welch has stated that the Prussian government expends, in the University of Berlin alone, outside of the salaries of professors, over \$50,000 annually. What American medical school can show anything approaching an endowment which will provide such a sum?

But the establishment of laboratories, with their attendant expenses, is not the only improvement necessary in our medical curriculum. Every well-conducted medical school requires as a part of its working apparatus a large hospital. Here must be installed again a twelfth laboratory of clinical medicine in which all the excretions of the body shall be examined, tumors studied, cultures and blood counts made; otherwise the patients in the hospital from the modern point of view, are neglected. It is not too much to say that a patient requiring such examinations, be he the poorest of the poor, has his case more scientifically studied, more exactly measured, more precisely treated, than most rich patients in sumptuous homes. Again, individual instruction is now carried out in all of our best *medical school hospitals* by the establishment of small ward-classes, by whom or before whom the patients are examined, prescribed for, and operated upon by the professor or instructor, each student bearing a part in the work and having his investigations directed, his powers

of observation cultivated, his mistakes pointed out, his successes applauded. All of these laboratory and ward classes require a large number of assistants and a corresponding outlay of money.

Our hospitals do a magnificent work in charity, helping the sick and forlorn, the weak and the suffering in a way which appeals to the charitable instinct, and to this appeal our fellow countrymen have responded most generously; but I venture to say that the medical school which trained a *Lister*, a *Pasteur*, or a *Koch* has done as much for humanity as all the hospitals of this country combined.

What has the American public done for the medical schools? Let us contrast it with the endowments in theology, for our academic institutions have such an enormous sum-total of endowments that I do not even consider them. Let us, however, compare theology and medicine, remembering that theology is almost wholly a literary study, not dealing with the facts of nature, requiring no laboratories and no large corps of assistants, and ~~and therefore be conducted at a minimum~~ of cost. In 1898, 84 theological schools reported endowments of \$18,000,000; 71 schools made no report on this item; 19 out of 151 medical schools report endowments at \$1,900,000. Five theological schools have endowments of from \$850,000 to \$1,369,000 each; yet in 1899 there were only 8,000 students of theology as against 24,000 students of medicine. Each theological student had the income of an endowment of \$2,250 provided for his aid, each medical student the income from \$83. As against 171 endowed chairs of theology there are only 5 in medicine. I do not grudge a dollar to the theologian, but I plead for his medical brother that with a vastly more expensive education he shall have a reasonable provision made for his training. I have already indicated to some extent the

direction which these endowments of medical schools should take. They may be classed in three categories:

1. The endowment of professorships. Such endowment may well take the form of a memorial, either of the generous donor, or of some distinguished former occupant of such chair whose name would always add luster to it.

2. The endowment of the laboratories, which, as I have indicated, are

costly, both in their installation and in their yearly expenses.

3. The endowment of post-graduate scholarships and research fellowships, intended especially for those who will devote their time to original research.

For its own protection the public should give reasonable endowments to its medical schools; such gifts will be returned to the community tenfold in better educated, better trained, and more successful doctors and nurses.

## PRESUMPTIVE DIAGNOSIS IN GYNECOLOGY.

BY WALTER D. BOGGS, A.B., M.D., PASADENA, CAL.

The aim of this paper is to place before the general practitioner the essential symptoms that will enable him to make a "presumptive gynecological diagnosis," which can later be confirmed by a physical examination.

The diseases of a gynecological nature, to which women are heir, can be chronologically classified under five separate and distinct periods as follows:

I. *Period of Infancy* where there exist diseases from vulvo-vaginal inflammatory conditions or from arrested development of one or more of the reproductive organs.

II. *Period of Puberty* where the arrest of development becomes manifest such as amenorrhoea, dysmenorrhoea, atresia of cervix and other congenital malformations interfering with the menstrual flow.

III. The *Period of Adolescence*, which makes up the largest gynecological field because we are dealing with three great classes of diseases, namely:

1. Those incident upon child birth (lacerations, abortion, ectopics, hemorrhages, etc.)

2. Diseases due to inflammatory conditions, dependent upon infection as the exciting cause, such as the gonococcus, streptococcus, staphylococcus.

3. Benign Tumors such as fibroids and cysts; also sarcoma whose degree of malignancy depends upon the type of tumor.

IV. *Period of Menopause* associated with Malignant Tumors.

V. *Period of Post-Menopause* where you are dealing with atrophic conditions and malignancy.

Thus you see by the age of the patient alone, we can mentally place her in one of the above periods.

There are *Three Factors* in gynecological work that are *constant* and a careful detailed history of each will often clear up a cloudy diagnosis.

These three factors are:

1. *Hemorrhage.*
2. *Leucorrhoea.*
3. *Pain.*

*Hemorrhage* is either "*Menorrhagia*" or "*Metrorrhagia*" whose etiology may be from one or more of the following causes:

(1) *Puerperal Causes:*

(A) During Pregnancy:

- (a) Endotrachelitis.
- (b) Erosion of cervix.
- (c) Mucous polypi.
- (d) Threatened miscarriage.
- (e) Cancer of cervix; fibroid.
- (f) Hydatid mole.



- (g) Ectopic gestation.
- (h) Abortion.
- (i) Placenta praevia.
- (B) During Labor:
  - (a) Wounds in birth canal.
  - (b) Rupture of Uterus.
  - (c) Accidental hemorrhage.
  - (d) Placenta praevia.
- (C) During post-partum:
  - (a) Retained secundines.
  - (b) Subsidiary placenta.
  - (c) Inversion of the uterus.
  - (d) Subinvolution.
  - (e) Uterine displacement.
  - (f) Hyperinvolution, due to nursing and consequently a reflex condition. One finds a large soft cervix with a small body.
- (g) Post-partum hemorrhage.
- (2) *Non-Puerperal Causes*:
  - a. Digital or instrumental interference with genitalia.
  - b. Cancer.
  - c. Ovarian or tubal disorder.
  - d. Tubercular condition of genitalia, especially of cervix.
  - e. Uterine fibroma.
  - f. Sarcoma.
  - g. Endometritis.
  - h. Angioma.
  - i. Arterio-sclerotosis of uterus.
- (3) *Organic Causes*:
  - 1. Cardiac disease (e. g. mitral stenosis).
  - 2. Pulmonary tuberculosis.
  - 3. Nephritis.
  - 4. Cirrhosis of liver.
  - 5. Anemia.
- (4) *Neuroses*:
  - 1. Shock.
  - 2. Emotion.
- (5) *External Causes*:
  - 1. Accidents, etc.

When hemorrhage does occur, its *Type*, as well as the age of the patient, is suggestive of the condition.

The two points of importance in hemorrhage are:

1. Where does the hemorrhage come from?

2. What is its type?

(A) In young "unmarried women" under 20 years of age, the cause is usually of *Organic* character, due to the overbalance between the circulatory and nervous systems.

Therefore, examine patient for chlorosis, endocarditis, lungs for congestion and urine for nephritis, etc. The hemorrhage comes from the relaxed condition of the uterine blood vessels.

The *Type* of the *Hemorrhage* is characteristic:

1. Irregularity of the interval between menstrual dates.

2. Profuse and prolonged flow when it does occur.

(B) In "parous women" between the ages 18-40, the hemorrhage is uterine and is due to one of the following conditions:

1. Subinvolution of uterus.
2. Inflammation due to micro-organisms.
3. Uterine displacements—especially common between 35 to 40 years.

4. Fibroids—more common in unmarried women between 35 to 40 years.

5. Ectopic gestation and abortion.

The *Types* of *Hemorrhage* in group B are decidedly characteristic and differ one from the other in marked degrees.

1. *Type* in Displacement and Subinvolution:

- (a) Prolonged menstrual period.
- (b) Increase in quantity of flow.
- (c) Blood dark in character due to prolonged venous congestion.

- (b) Bearing down pains severe.
- (e) Blood clots in menstrual discharge.

2. *Type* in Fibroidal Changes:

- (a) Gradual shortening of menstrual intervals from both ends.

- (b) Prolonged flow.

3. *Type* of Hemorrhage in Ectopic, occurring at any time between the ages 14 to 45, is quite characteristic and assumes one of three varieties:

- (a) "Postponed Menstruation," followed by metrorrhagia.

(b) "Skipped Menstruation," followed by intermittent hemorrhagic spotting.

(c) "Atypical Menstruation" which occurs on time. The flow continues for one or two days and then intermits for a few days to be followed by a slight flow, another intermittence followed by a slight flow. This intermittency is characteristic of this form of ectopic.

A type of hemorrhage around the meno-pause differs from the others in quantity, quality, periodicity and consistency, and consists of two varieties, one normal and the other pathological.

(a) "Climacteric Changes:" irregular menstrual periods associated with "hot and cold flashes," headache and some pelvic pain (normal condition).

(b) "Incipient Cancer" or "Degen-erating Fibroid:"

1. Thin acrid serous or sero-sanguinous discharge.

2. Absolute untimeliness of flow, subsequent upon the meno-pause. No pain in early stages.

*Leucorrhoea* is the second constant symptom in gynecological cases and it, like hemorrhage, differs in location, etiology and type according to whether it occurs during the period of Infancy, Puberty, Adolescence, Menopause or Post-Menopause. A slight vaginal, cervical and uterine secretion is normal to every healthy woman.

I. *Leucorrhoea* in "infancy to puberty:"

1. Its location is in the vulvo-vaginal region.

2. Its etiology is worms, dirt and gonorrhoea.

3. The *Type* of discharge is *Purulent*.

II. *Leucorrhoea* from "puberty upward:"

1. Vaginal *Leucorrhoea*:

(a) Normal is milky and watery.

(b) *Vaginitis Sero-Purulent*.

2. Cervical *Leucorrhoea*:

(a) Normal consists of a thick gelatinous and mucous discharge.

(b) In Cervical Infection it becomes *Muco-Purulent*.

3. Uterine *Leucorrhoea* from the body: The discharge is *Serous* and watery in character and, when occurring after the menopause, suspect "Carcinoma."

The *Etiology* of "Muco-purulent" discharge during middle life:

1. Cervical laceration, the amount being dependent upon the size of the tear.

2. Gonorrhoea.

3. Tubercular infection of cervix (e. g. tubercular ulcer).

The *Etiology* of a "sero-sanguinous discharge" around the menopause.

1. Any acrid serous or sero-sanguinous discharge is emphatically suggestive of "Carcinoma."

Hence in general, we can say that "Leucorrhoea from disease differs in type according to the location of the disease as Vaginal Leucorrhoea is Sero-purulent, Cervical Leucorrhoea is Muco-purulent and Uterine Leucorrhoea from the body is serous to sero-sanguinous.

You can lay down no firm and fast rule regarding the absolute consistency of leucorrhoea as the intermingling of secretions is marked at times, but, taking into consideration the age of the patient, her parous or non-parous state, her hemorrhagic history in detail and her own leucorrhoeal history, one can fairly judge whether such a secretion is of vulvo-vaginal, cervical or bodily origin and the confirmation of this will be made during the physical examination. Never be positive in any diagnosis until after the contents of Skene's Glands of the urethra and the Vulvo-vaginal glands have been expressed out and an examination for gonococcus has been made.

A very common leucorrhoeal history is as follows:

The patient before her marriage never had any leucorrhoeal disorders. Two or three months following her marriage, she began to notice a slight discharge together with severe burning during

urination. From that time on the leucorrhoea has been increasing in quantity and very annoying.

An examination of Skene's Glands and the Vulvo-vaginal Glands reveals a secretion showing gonococci under the microscope.

*Pain* is the third constant symptom in Gynecological work and presents itself for examination in many characteristic types.

Pain has four *Characteristics* as follows:

1. Time of Occurrence.

- (a) Premenstrual.

- (b) Co-menstrual.

- (c) Inter-menstrual.

2. Location.

3. Character of Pain.

4. Distribution.

- I. Time of Occurrence:

1. "Premenstrual Pain," occurring a few minutes before the flow, is due to colic from temporary congestion; it soon disappears and has no pathological significance.

2. "Premenstrual Pain," occurring a few days before the flow, is usually due to a Parametritis, often resulting from an antelexion or a tortuous uterine canal thus preventing an outlet to the engorged pelvic organs and thus producing a "chronic parametritis," which becomes apparent previous to every menstrual period as the pelvic organs are put on a stretch and the adhesions, subsequent upon the chronic parametritis, produce pelvic pain.

3. "Co-menstrual Pain" is indicative of Metritis or Fibroids.

4. "Intermenstrual Pain" suggests diseases of the adnexa, ptosis of the abdominal viscera, ovarian cysts, etc.

- II. Location of Pain:

*Backache* is a characteristic symptom among women for gynecological and non-gynecological conditions and, if one considers all backaches, and many do, as a gynecological disorder, one will err in his diagnosis many a time.

A "Cervical Backache" is usually of a neurasthenic nature and gymnastics to develop the muscles of the neck is the proper treatment.

A "Dorsal Backache" is likewise neurasthenic in etiology and chest weights will obviate this condition.

A "Lumbar Pain" is suggestive of ptosis of the abdominal viscera, 40% of them being nephroptoses; an acute nephritis is another condition to be considered.

"Coecygeal Pains" usually follow emaciating diseases as typhoid; long confinement in bed during puerperium; fracture of the coecyx.

There is but one "Gynecological Backache." Its location is in the sacral region and is known as "*Sacralgia*." It is always dependent upon some uterine disorder and is indicative of the involvement of the utero-sacral ligaments, which have become inflamed from the neighboring infectious region and they are consequently in a state of tension or "cellulitis" and any movement made by the woman puts the ligaments in a state of unrest and thus *sacralgia* is the result.

Abdominal Pain is usually complex in character and is more or less general at the onset of pelvic disease but sooner or later becomes localized at the site of the diseased organs.

Location of pain and tenderness:

1. Tenderness elicited by pressure with the finger between the second and third lumbar vertebrae on either side of the spinal column is almost pathognomonic of uterine involvement.

2. "The Mayo-Robson point" is a line drawn from the ninth rib to the umbilicus and pain along this line indicates gall bladder or duct disorder.

3. "Morrison's Point" is found on the outer border of each rectus muscle, two inches to the left or right of the umbilicus and one-half inch below it. Over that point are the lumbar glands. In chronic appendicitis, this point on



the right side is used for a control with McBurney's point.

### III. Character of Pain:

1. "Burning Pain" in either inguinal region is a constant symptom of ovarian cystoma.

2. "Boring Pain" is suggestive of congestion of the pelvic organs.

3. "Cramp-like Pains" of the intestines are quite suggestive of angulation somewhere along the intestinal tract.

4. "Cramp-like Pains" in the tubal region usually mean Ectopic Gestation.

5. Sensitiveness and rigidity of the abdominal walls suggest peritonitis.

### IV. Distribution of Pain: (e.g.)

Pain radiating down the back of the thigh on one or both sides is quite suggestive of pressure pain due to uterine involvement.

In this brief discussion of Hemorrhage, Leucorrhoea and Pain, it has been my aim to lay emphasis on the necessity of taking detailed histories of these three symptoms, a thing too often neglected, as the type of each symptom is always decidedly suggestive of the condition with which one has to deal, and with these facts in mind, one can enter upon the physical examination with a little more intelligence, and the physical examination in most cases will merely confirm the "Presumptive Diagnosis."

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Tolstoi says: "Death has no terrors save for him who does not believe in God, or—and it amounts to the same thing—for him who believes in a bad god. But for him who believes in God and in His Goodness, who in this life lives in accordance with His laws and has experience of His goodness—for him death is only a transition from a condition that is good and appointed by God, to another condition, unknown but also appointed by Him, and therefore, of necessity, 'good.'"

### THE MELANCHOLIA OF COWPER.\*

Cowper was the victim of some inborn defect of nerve tissue, which predisposed him to attacks of melancholia. As a result of this tendency, he was unable to withstand the ordinary stresses of life, and so was influenced by these stresses in a degree out of all proportion to their amount. Thus, when an attack of insanity took place, some preceding event was postulated as its cause—post hoc ergo propter hoc—whereas it could at the most be looked upon only as an aggravation of the latent defect. Many are subject to emotional and religious stresses, few succumb mentally to them; financial difficulties for the majority serve as a stimulus to renewed effort; environmental conditions of an appallingly depressing nature fail to check the cheerfulness of vast numbers of the toiling poor. And so through the whole gamut of worries and trials. The germ of insanity flourishes bravely only in a brain which lacks the necessary powers of resistance.

Cowper suffered much, but out of his suffering sprang much that is beautiful in his song. The distinctions of genius are often dear-bought, but is not the price paid an investment whose revenue provides delicate intellectual nourishments for succeeding generations; or did Cowper feel, when life was drawing to a close, and the clouds were settling down upon his mind, that the sacrifice had been too great, and that he, too, would—

"Better be with the dead . . .  
Than on the torture of the mind, to lie  
In restless ecstacy?"

Who shall determine? Yet may we say of him, as of many another who has "lain down in horror and risen in despair"—

"After life's fitful fever, he sleeps well."

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\*Abstracted for the Southern California Practitioner from the Westminster Review, June, 1911.

# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

This journal endeavors to mirror the progress of the profession of California and Arizona.

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Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

## EDITORIAL

### THE PROLONGATION OF LIFE.

Metchnikoff has exerted a most beneficent influence through the promulgation of his theories in regard to the use of buttermilk and the milk ferment drinks produced by the bacillus *Bulgaricus*.

The awakening of the civilized world to the teaching of the medical profession in regard to the importance of preventive medicine is causing also a marked increase in human longevity.

An English actuary says: "When Victoria became Queen the average male life was under forty; today it is forty-six. The average life of woman was forty-two, and today it exceeds forty-eight."

The average duration of the life of physicians for four centuries also shows the steady increase of longevity:

Sixteenth century average length of physicians' lives, 35 years.

Seventeenth century average length of physicians' lives, 45 years.

Eighteenth century average length of physicians' lives, 49 years.

Nineteenth century average length of physicians' lives, 56½ years.

This shows the average duration of the life of the medical practitioner during the four centuries to be a fraction over forty seven years. While the life of the physician is longer than the average life of man, yet it compares very unfavorably with that of the average life of bibliophiles. We had frequently been impressed with the great age of book collectors, not only from the text of what we have read, but also from pictures. Every picture we have ever seen of a biblio-maniac has represented him as an old man, usually a very nimble old man, standing on a step ladder with one large tome under each arm and another opened in his hands.

Can book-collecting have a favorable effect on the prolongation of life? became to me a live question.

To test this important problem I recently had the ages of all the known \*book collectors added together and divided by the total number and the result gave an average longevity of sixty-nine and eighty-three hundredths years, or practically seventy years. Moreover, this average would doubtless have been decidedly increased had not several of the number been obnoxious to the throne. There was the Bishop of Rochester (John Fisher), whom the gallant Henry the Eighth beheaded in 1535, and Cranmer, an enthusiastic book collector, whom Henry's delightful daughter, Mary, in one of her capricious moments, had burned at the stake in 1556. Even these rulers by divine right might have withheld the fagot and the axe had they known the scientific importance that would in the twentieth century be attached to knowing what the natural life of their subjects would have been.

At 76 years of age the second Earl Spencer, a notorious book collector, wrote to Rev. Thomas Frognall Dibdin, "I am trying my hand at a classical catalogue."

Metchnikoff, like many others, has become a man of one idea. The real way to produce results is to broaden the view. Our own opinion, reached after careful study, is that he who drinks buttermilk should also become a book collector and vice versa. By thus combining these two methods the

solution of the problem will be reached and the average efficient life of man will be readily advanced to at least one hundred years.

### CHRISTIAN SCIENCE—NO. 8.

We herewith present the eighth and last installment on Christian Science by Dr. J. M. Buckley of New York, abstracted from *The Christian Advocate*. We have not published Dr. Buckley's valuable articles in full but only selections that appeal especially to physicians.

#### MRS. EDDY'S CHARACTER FURTHER ELUCIDATED.

Mrs. Eddy was bolder than a lioness robbed of her whelps. When she was charged with believing in Pantheism, she said that that word was based on an ancient god Pan, whereas "Pan" simply means "all" or "every," and Pantheism is the doctrine that the *universe*, taken or conceived of as a whole, is God; or that there is no God but the *combined forces and laws which are manifested in the existing universe*.

#### SHE PLUNGED BEYOND HER DEPTH.

Yet in her book, "Christian Science: No and Yes," published in 1887, this woman, whose brain could not comprehend or carry the theories of these master but contending minds, dared to write as follows:

[p. 25.] Leibnitz, Descartes, Fichte, Hegel, Spinoza, Bishop Berkeley were once clothed with a "brief authority;" but Berkeley ended his literary career with a treatise on the healing proportions of tar-water, and Hegel was an inveterate snuff-taker. The circumlocution and cold categories of Kant never improved the conditions of mortals, morally, spiritually, or physically. Such miscalled metaphysical systems are reeds shaken by the wind. Compared with the inspired wisdom and infinite meaning of the Word of Truth, they are as moonbeams to the sun, or as Stygian night to the kindling dawn.

Most of her devotees, struck by the foreign names, opened their eyes with

\*See *English Book Collectors*, by W. Y. Fletcher. London, 1902.



wonder at her marvelous insight and outsmart. This is the same Bishop Berkeley to whom (when she was trying to explain taking an anesthetic or some other method of dulling the sense of pain when her tooth was extracted, mentioned in *The Christian Advocate* of February 2) she referred in the following words: "*Bishop Berkeley and I agree that all is Mind.*"

As for Hegel's taking snuff, it had nothing to do with his "authority" or his sentiments. In his day snuff-taking was more common than the chewing of tobacco is today.

In 1885 Mrs. Eddy made a peculiar attack upon the memory of Ralph Waldo Emerson. In her "Historical Sketch of Metaphysical Healing," she says:

[p. 10.] Emerson's ethics are models of their kind; but even that good man and philosopher *lost his faculties of mind* before death, because he did not understand the science of Mind elaborated in that book.

The reader will perceive that she means that if he had understood the book "Science and Health," he would not have lost his faculties.

Under the influence of her literary adviser, the Rev. Mr. Wiggin, a Unitarian preacher of many accomplishments, who considered Christian Science a hoax or a delusion, in the next edition she changed the statement a little, no doubt to curry favor with the admirers of Emerson.

"Mind-Healing: Historical Sketch," 1886, says:

[p. 11.] Emerson's ethics are models of their kind; but even that good man, and genial philosopher, *partially* lost his mental faculties before his death, showing that he did not understand the Science of Mind-healing, as elaborated in my Science and Health; nor did he pretend to do so.

The fact is, and the public knew it at the time, that Ralph Waldo Emerson simply passed into the realm of forgetfulness and childishness, which sometimes accompanies old age, and when it begins

there is no certain way to prevent its increase except death. Mrs. Eddy herself did not escape it.

The proverb "Once a man and twice a child" suggests how frequently it occurs.

#### A PORTENTIOUS CHALLENGE NOT ACCEPTED.

Wallace W. Wright was the son of a Universalist clergyman of Lynn, Mass., and a brother of the very distinguished Carroll D. Wright, twenty years United States Commissioner of Labor, and afterward president of Clark College, Worcester, Mass. Wallace W. Wright took a course under Mrs. Eddy, then went to Knoxville, Tenn., and practiced healing. There he came to the conclusion that the whole thing was merely "Mesmerism," and he contributed to the *Lynn Transcript* in 1872 a signed letter, in which he stated that he believed Moral Science (the title Mrs. Eddy first gave her method) and Mesmerism to be one and the same thing. This gave rise to a controversy, and finally Mr. Wright publicly challenged Mrs. Mary Baker Glover to demonstrate her science by any of the following methods, which cover what she had professed herself able to practice:

1. *To restore the dead to life again, as she claims she can.*
2. *To walk upon the water without the aid of artificial means, as she claims she can.*
3. *To live twenty-four hours without air, or twenty-four days without nourishment of any kind, without its having any effect upon her.*
4. *To restore sight when the optic nerve has been destroyed.*
5. *To set and heal a broken bone without the aid of artificial means.*

She did not respond, but some of her students took up the case.

No one disputed the character of Mr. Wright.

We have shown that Edward Everett Hale, in conversation with her, heard her declare that she could by an effort of the will stop the flow of blood if a vein or artery was cut. If she would say that, she would not stop at uttering any

of these separate statements in order to complete the submission of her students to her will and professed science. This makes what Mr. Wright writes credible.

#### ERGOT STANDARDIZATION.\*

This Bulletin bears the imprint of a scientific document. For such work the Hygienic Laboratory bears a good repute. Unfortunately our space forbids entering minutely into a review of the work here presented. You ought to read it. But we can't resist giving you just a sip of it.

In Part III there is a report on the strength of ergot preparations on the market. Representing the standard, Spanish ergot, by the arbitrary figure 5, the following figures are obtained as the results of July and December assays, showing the respective quantities required to produce the effect of 5 parts of Spanish ergot:—Spanish ergot, 5; Cornutol, 5; Russian ergot, 6; Nelson Baker & Co., fluid extract, 6; Ergone, sample 2, 8; Wyeth purified ergot, 8; Parke, Davis &

Co., sample 2, fluid extract, 9; Sharpe & Dohme, fluid extract, 10; Ray Chemical Co., fluid extract (old), 11; Ergotole, 15; Parke, Davis & Co., sample 1, fluid extract, 20; H. K. Mulford Co., fluid extract, 20.

It will be noted that none of these is stronger than the pharmacopœal preparation of ergot, and most require decidedly larger quantities to produce the same effect. Two of the recommendations we quote, since they are worthy our endorsement, viz: "Ergot preparations should be marked with the date of manufacture." To this we would add, that the date of collection of the ergot should be indicated. Second, "Until more reliable methods of manufacture are found, makers of ergot preparations would be wise to exclude the phrase, "ergot in permanent solution," from their advertising literature. They may thus avoid misbranding."

G. E. M.

\*The Physiological Standardization of Ergot, by Charles Wallis Edmunds and Worth Hale. Hygienic Laboratory Bulletin No. 76, July, 1911. Treasury Department. Public Health and Marine Hospital Service of the United States.

## EDITORIAL NOTES

San Diego has just completed its first open-air school room.

Dr. E. P. Wallace of Pomona is doing hospital work in Vienna.

Dr. C. E. Standlee has been appointed health officer for Imperial.

Dr. A. W. Craig of Phoenix, Arizona, has been spending a few days in Los Angeles.

Dr. M. D. W. Jeffs formerly of Chicago has opened offices at 3519 Central Avenue, Los Angeles.

Dr. J. K. Swindt is spending a few weeks with Dr. Murphy of Chicago and other Eastern surgeons.

Dr. Bim Smith of Hermosillo, Mexico, has been visiting relatives and friends in Southern California.

Dr. Geo. C. Bryan, who succeeds to the business of the late Dr. C. L. Rich, has opened his office in Fullerton.

Dr. W. Harriman Jones of Long Beach has returned from an automobile trip to San Francisco and vicinity.

Dr. and Mrs. Henry H. Lissner of Los Angeles have returned from a delightful wedding trip to Honolulu.

Dr. J. W. Pollard of Los Angeles has returned after doing post graduate work in New York for two months.

Dr. Wm. R. Jacobs of Los Angeles has taken offices in the Ferguson Building, corner of Third and Hill streets.

Dr. J. M. Borders, formerly of Fort Worth, Texas, died at his home in Redlands of heart disease on September 14th.

Dr. Cyrus M. Field, grandson of Cyrus M. Field, who laid the first trans-Atlantic cable, is Pathologist of Bellevue Hospital.

Dr. E. B. Ketcherside of Yuma spent part of September in Chicago where his son was under the care of Dr. J. B. Murphy.

Dr. J. C. King of Banning is doing much to improve the Banning Hospital which is open for both surgical and medical cases.

Dr. Thos. Linaere, who was physician to Henry VIII., founded the Royal College of Physicians of London September 25th, 1518.

Dr. Grant Gould Speer of Los Angeles has an article on *Recent Repair of the Cervix* in the *Medical Record* of August 12.

Dr. Alfred C. Reed of Pomona has received a commission in the United States Public Health and Marine Hospital Service.

Dr. C. S. Bossert, a graduate of the George Washington University, Washington, D. C., has located in Brawley, Imperial County.

Dr. F. T. Bicknell of Los Angeles on September 25th was standing by Bunker Hill monument. He spent several days in historic Boston.

Dr. H. R. Martin of Riverside is taking a vacation and at the same time

devoting himself to work in the hospitals of the East.

Dr. A. Kirkpatrick, late chief surgeon of the Construction Department of the Southern Pacific in Mexico, is spending a few weeks in Los Angeles.

Dr. Edwin D. Ward has been appointed to succeed Dr. Irving R. Bancroft—resigned—as Assistant Health Commissioner of Los Angeles.

We have received a reprint from David Russell Lyman of Wallingford, Conn., entitled: *The Employment of Arrested Cases of Tuberculosis*.

Dr. F. L. Horton of Los Angeles, after completing a course in the Lying-In Hospital, New York City, spent a few weeks in the N. Y. Post-Graduate School.

Dr. A. H. Rowan, who lives at 107 W. Fourth street, Santa Ana, is the oldest living alumnus of the Ohio Medical College. Dr. Rowan is in his 90th year.

Dr. J. H. Trout, formerly coroner of Los Angeles County, is seriously ill with tuberculosis at his home in Glendale. He has been bed-fast for five months.

Dr. W. W. Roblee of Riverside has been hunting deer in Humboldt and Trinity counties. The doctor got his limit of deer and had a fine time generally.

Dr. Francis E. Shine, Chief Surgeon of the Copper Queen Mining Co., at Bisbee, spent a day in Tucson last month where he was called in professional consultation.

Dr. R. L. Cunningham of the Barlow Sanatorium is now associated with Dr. W. Jarvis Barlow in the practice of medicine with offices in the Security Building.

Dr. W. W. Beckett is in New York City attending the annual meeting of Medical Directors of American Life Insurance Companies. He will return October 16th.



Dr. George E. Malsbary of the Auditorium Building has established a Quizz class that he calls the Los Angeles Post-Graduate Medical School California State Board Quizz.

The Maricopa County Medical Society, through its Secretary, Dr. W. Warner Watkins, of Phoenix, is publishing a weekly bulletin which is mailed to all members of the society.

Dr. E. Scott Blair, Superintendent of the Asylum for the Insane at Patton says that there are 30% less insane cases in California to every 1000 persons than there were ten years ago.

The Surgical Treatment of Sub-Territorial Cysts and Tumors; Perforating Gastric Ulcer; Medical Expert Testimony are recent reprints by Andrew Stewart Lobinger of Los Angeles.

Dr. Niel C. Trew of 146 E. Avenue 56, Los Angeles, has retired from practice for a year's rest. Four years ago he was infected while operating and his condition has not since been satisfactory.

Dr. M. Antoinette Bennett has resigned her position as superintendent of nurses and house physician at the San Bernardino County Hospital in order that she may devote herself entirely to private practice.

Dr. Tillotson of Holtville, Imperial County, suffered from a fractured skull and broken ankle in an automobile accident September 12th. The last report was that it was thought he would recover.

Drs. W. A. Holt and R. D. Kennedy of Globe and Dr. F. E. Shine of Bisbee spent a short time in Miami last month, where they were called in consultation with Dr. J. E. Bacon, Chief Surgeon of the Miami Copper Co.

Los Angeles is having constructed the so much needed open-air school rooms. In all school buildings that are being constructed there are open-air study rooms,

lunch rooms and reading rooms. This is a very valuable forward step.

Dr. Clarence Moore of Los Angeles is East doing hospital work. Dr. Moore will spend four weeks with Dr. Geo. Crile of Cleveland, several weeks with Deaver in Philadelphia and the balance of his time with the Mayos.

We are glad to receive the monthly report of the Department of Sanitation of the Isthmian Canal Commission. Colonel Gorgas gives here from month to month a complete statement of the sanitation work in the Canal Zone.

Dr. Geo. A. Bridge, Assistant Superintendent of the Copper Queen Hospital at Bisbee, attended the annual meeting of the New Mexico Medical Society at East Las Vegas as the fraternal delegate from the Arizona Medical Association.

The following have recently been admitted to the Los Angeles County Medical Association by transfer: Dr. R. M. Dodsworth from Alameda County; Dr. C. A. Shepard from Riverside County; Dr. E. M. Bixby from San Francisco.

Dr. Wm. Friedberger, Superintendent of the County Hospital, and Dr. D. D. Dameron have a case of Bubonic Plague in the hospital at Stockton. Several squirrels around Stockton that have been examined have shown the presence of the plague germs.

Dr. P. R. McArthur of Los Angeles has returned from several months' hospital work in Vienna. This was also his bridal trip and he and Mrs. McArthur are living temporarily at the Hartman Apartments during the completion of their residence.

Dr. J. J. Choate, the Los Angeles physician who was called by cable to see a patient in the city of Rome, has returned. He was just eleven days in traveling from Los Angeles to Rome. His patient recovered enough to return to Los Angeles with the doctor.

Dr. Arthur D. Houghton, 243 East 30th street, Los Angeles, has botany as his special fad for relieving the monotony of medical practice. The doctor has recently developed a purple orange, a rubber vine and a new variety of cherry. He is the Burbank of Los Angeles.

The Board of Supervisors of Los Angeles County have appropriated \$25,000 to begin the construction of a psychopathic ward in the County Hospital for the treatment of those temporarily insane. This is a laudable action and meets with general approval.

Dr. Irving R. Bancroft, who has been Assistant Health Commissioner of Los Angeles for four years, has resigned in order to devote himself to his private practice. Dr. Bancroft has been a valuable public official and his work there must have been at a great personal sacrifice.

Dr. Walter Owen Ryan, who was formerly one of the leading physicians in Springfield, Ill., but who was residing at 2500 South Flower street, Los Angeles, on September 1st, attempted to kill his wife and then committed suicide. His sons testify that their mother had lived a life of a martyr for the past five years.

The following new members were admitted to the Los Angeles County Medical Association September 23, 1911: Dr. Charles C. Manger, Dr. Albert H. Winter, Dr. Wm. T. Rothwell, Dr. Duncan McArthur, Dr. John P. Nuttall, Dr. Marión S. Reynolds, Dr. Karl F. Ross, Dr. C. F. Metcalf, Dr. Byron Palmer, Dr. E. L. B. Godfrey.

Dr. C. H. Whitman of the Los Angeles County Hospital has issued orders reducing the amount of Therapeutic Whisky to be used in that institution. In the California Hospital where there is an average of between 125 and 150 patients, there is an average of less than

one quart of whisky prescribed for patients in a month.

Dr. E. Soegaard, physician at the Arrowhead Hot Springs the past year, has resigned his position and accepted that of physician and surgeon for the Arrowhead Reservoir and Power Company, in Little Bear Valley, left vacant by the departure of Dr. S. B. Richardson for New Orleans. The position at the hot springs has not yet been filled.

The annual report of the Health Department of the City of Los Angeles, Cal., for the year ending June 30th, 1911, is at hand. There were 4821 deaths in Los Angeles during the year, giving a death rate of 13.17 per 1000 of the population. We also desire to congratulate the Health Department on the monthly bulletin that is now being issued.

Dr. Eleanor Seymour, resident physician of the Pacific Hospital, has been appointed bacteriologist in the State Hygienic Laboratory at Berkeley, and has taken a leave of absence from the hospital and from the Los Angeles Medical Department of the State University, where she has been for a number of years instructor in clinical microscopy.

Dr. Barton Cooke Hirst, professor of obstetrics of the University of Pennsylvania, is writing, urging the State Boards of Medical Examiners to demand that an applicant for a license to practice medicine should have attended at least six maternity cases, under supervision, before being admitted to examination. This is an excellent movement and Dr. Hirst should receive the assistance of the profession.

Dr. Cecil E. Reynolds of London is in Los Angeles and thinks seriously of locating here. The *British Medical Journal* of September 2, 1911, contains an article by Dr. Reynolds: "Nasal Obstruction and Its Consequences in School

Children.' The doctor was connected with the educational department of the London County Council and teacher of anatomy in the University Medical College of London from which he graduated.

Dr. Edward P. Mann, formerly of Buffalo, N. Y., has located at Coronado Beach. Dr. Mann's father was Dr. Matthew D. Mann, who was the attending surgeon to President McKinley. Dr. Robert Reyburn of Washington, D. C., has located in San Diego. His father was the attending surgeon to President Garfield when he was shot by Guiteau in 1881. It is quite an interesting coincidence that the sons of two surgeons of two assassinated Presidents should locate in San Diego County.

Dr. Walter V. Bren has been elected professor of Pathology and Bacteriology in the faculty of the Los Angeles Department of the College of Medicine of the University of California. Dr. Bren graduated with the degree of B. S. from the University of North Carolina in 1896. He received M. D. from Johns Hopkins Medical School, 1904, and was Medical House Officer in Johns Hopkins Hospital 1904 and 1905. From 1905 to 1911 Dr. Bren was under Col. Gorgas—two years as physician and acting pathologist in the Ancon Hospital, and four years of the Medical Clinic, Colon Hospital, Cristobal. We welcome Dr. Bren to Los Angeles.

The Barlow Medical Library is filling a useful place in the professional life of Southern California. Many physicians are learning to use the library and the librarian when they desire data on any especial subject. The library is well supplied with all of the latest journals, foreign and American. It also has an excellent collection of reference books and is only short on recent publications. One thousand dollars should be spent within the next three months on new books. Buy a useful late work and send

it to the library with your compliments or else send in a cash gift of from Five Dollars to One Hundred Dollars and help on the good cause. By the way, have you a clause in your will giving some of your choicest books in your collection to The Barlow Medical Library?

The annual examination of the Nurses' Training School of the Sisters' Hospital was concluded on Sunday, September 3rd, with a luncheon to the nine graduates, the junior nurses and a number of other members of the hospital staff. Diplomas were awarded by Sister Mary Ann, sister superior of the infirmary, to the following graduates: Mrs. Harriet LaVies, Santa Barbara; Miss Jessie McIntosh, Scotland; Miss Kathleen Long, San Francisco; Miss Cora Harter, Upland; Miss Florence Murray, Leadville, Colo.; Miss Alice Barton, England; Miss S. Della Bella, Los Angeles; Miss Margaret Morrissey, Des Moines, Iowa, and Miss Maud Hoffer, Upland. On Monday evening the graduates were entertained at a theater party by the members of the training school.

Announcement is made by the Board of Trustees of Stanford University of a \$10,000 gift by Dr. A. Barkan, professor emeritus of the medical school, for the establishment of a special library. Also there was announced recently the gift of \$5000 from Charles G. Lathrop, treasurer of the University and brother of the late Mrs. Stanford, for general medical library purposes. The people of Southern California, and particularly the medical profession, should awake to the importance of increasing the completeness of the Barlow Medical Library. This should be promptly placed to at least equal the Stanford Medical Library. Here where there are a thousand members of the medical profession gifts of from five dollars to five thousand dollars will give us what is needed.



## BOOK REVIEWS

PRACTICAL CYSTOSCOPY AND THE DIAGNOSIS OF SURGICAL DISEASES OF THE KIDNEYS AND URINARY BLADDER. By Paul M. Pilcher, M.D., Consulting Surgeon to the Eastern Long Island Hospital. Octavo of 398 pages, with 233 illustrations, 29 in colors. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.50 net. W. B. SAUNDERS COMPANY, Philadelphia and London.

Fortunately for both the profession and the patient the use of the cystoscope is becoming more general and the cause and safety with which it may be used in many cases is becoming also more widely recognized. The present volume has one great point in its favor in that it is the result of the writers personal observations and nothing has found its way into the book which has not been observed or tested by the author, who has also had the good fortune to study under Nitze and Gasper of Berlin and Von Frisch in Vienna.

He has divided this study into seven parts, although a misprint on page 9, indicates eight parts:—the technique of cystoscopy; the diseased bladder; diseases of the prostate; diseases of the ureter; functional activity of the kidneys; diseases of the kidney and therapeutic uses of the cystoscope. A recapitulation that at once shows the completeness of the work.

The pages concerned with the indications for the use of the cystoscope are a very fitting introduction to the book, clearly showing what we may expect from this aid to diagnosis. Any practitioner who can successfully pass a sound into the bladder can make a cystoscopic examination it is true, but, the use of the ureter catheter is much more complicated and only is acquired after considerable practice. On this account the author has devoted several pages to a careful description of the various instruments and the methods of their use; describing fully the European and American cystoscopes of the three distinct types generally in use—the simple examining cysto-

scope, the ureter catheterizing cystoscope and the operating cystoscope.

While Pilcher himself has given us a very good and popular indirect catheterizing cystoscope he advises that the beginner use the Buerger-Brown indirect, irrigating, observation, double catheterizing instrument. It allows a preliminary examination of the bladder with a prismatic telescope, giving a large field and free irrigation of the bladder without removing from the urethra. It may be taken apart and thoroughly cleaned and is illuminated by a lamp of the cold type and finally it may be repaired in the United States. In the west and some portions of the east, the direct cystoscope is still the favorite instrument, and is advised by a number of skilled operators, but this is usually a matter of personal taste. Pilcher thinks that a complete equipment, except for the most difficult and exceptional cases should consist of three cystoscopes—one, a simple examining cystoscope, No. 14, of the French scale; an American cystoscope of the large type presented by Buerger, providing an indirect irrigating, observation and double catheterizing instrument, and a third instrument of the direct catheterizing type, with a removable telescope, as described by Tilden Brown, Bransford, Lewis and Braasch, and the modification of Ayres and Cabot. If he had added the Elsnor we would unqualifiedly agree with him. We do agree that the urine segregators without the use of a ureter catheter are of little value and that the entire procedure is one of uncertainty. We no longer fear the danger of infecting a ureter. It does not occur, furthermore when it is remembered that some men of very extensive experience never use the ureter catheter, but depend entirely upon the cystoscopic and meato-

scopic examinations of the bladder conditions for the diagnosis of both renal and bladder disorders, one can easily see that if no more manipulation or preparation is necessary than the mere introduction of an instrument into the bladder, that the cystoscope will come more and more into general use and that there will be fewer mistakes in diagnosis.

The technique of ureter catheterization, both direct and indirect, in Section III. is a very satisfactory chapter, both for the beginner and for one who is moderately skilled. It is replete with useful suggestions gained from an extended personal experience.

The series of chapters on diseases of the bladder, including diseases of the prostate, will be found to be most satisfactory, a helpful guide to both the experienced and inexperienced.

The final portion of the book, a little more than a third of the whole, is devoted to a most excellent study of diseases of the ureter and kidney, together with some very valuable pages on the therapeutic uses of the cystoscope.

This book is well worthy a careful reading and a place in the library of all who are interested in the accurate diagnosis of surgical diseases of the kidneys and urinary bladder; for this purpose the reviewer fully commends it.

W. A. E.

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VAGINAL CELIOTOMY. By S. Wyllis Bandler, M.D. Fellow of the American Association of Obstetricians and Gynecologists; Adjunct Professor of Diseases of Women, New York Post Graduate Medical School and Hospital; Associate Attending Gynecologist to the Beth-Israel Hospital New York City. With 118 Original Illustrations. Philadelphia and London: W. B. Saunders Company. 1911.

This exceptionally well printed and illustrated volume of 450 pages is dedicated to Prof. Dr. Alfred Dührssen of Berlin, whose attention to this method of approach to pelvic and lower abdominal lesions in women has brought his name prominently before the medical world.

The author considers Posterior Vaginal celiotomy, both as to technic and as to the indications for its employment, such as Differential Diagnosis, to Loosen Adhesions, Replacement of Incarcerated Uterus, Removing Ovarian Cysts, Drainage in Pelvic Abscess, etc., etc. Anterior Vaginal celiotomy is considered as indicated for Separation of the Bladder from the Cervix, Delivery of the Uterus and Adnexa, Conservative operations, Retro-deviations, Cystocele and Vagina-fixation, Total Prolapse of the Uterus, etc., etc.

In addition to these conditions, the author considers the vaginal approach favorable for correction of Diseases of the Adnexa, for Hysterectomy, Ectopic Gestation, Ovarian Cysts, Myomectomy and Vaginal Caesarean Section. The author with the aid of the excellent illustrations which adorn the work, carries the student through these various steps and procedures by choice and well chosen descriptions. He has obviously devoted much time, pains and thought to the correction of many pathologic conditions which most surgeons find it convenient to operate trans-abdominally. The reviewer does not find cause for consideration of these questions of difference in the choice of routes since this work is dedicated to the consideration of the vaginal approach for the corrections of these various intra-pelvic conditions and is distinctly written for that purpose. Insofar as it fulfills this mission it occupies a unique and somewhat exclusive field, and as a book for students interested in what may be accomplished in this variety of operating, nothing more could be asked.

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Er. Francois Rabalais (1540) said: Recent history has verified the Saying of Chilon the Lacedaemonian, consecrated at Delphi, that Misery is the Companion of Law-Suits and that Suitors are miserable, for that they sooner come to the End of their Lives than to the Rights they put forward.

## MISCELLANEOUS

## MISCEGENATION.\*

In the beginning, explains our author, following in this matter Cuvier, the genus homo was sharply divided into three sub-species, differing from each other both in appearance and in character, at least as markedly as do the generic subdivisions of the animal kingdom. These three sub-species may be classified, according to the color of their skins, as the white, the black, and the yellow races. The enormous differences existing between them require that their evolutionary development should have taken place on different portions of the earth's surface. Hence they are distributed by Gobineau about the world as follows: Africa and Southern Asia were occupied by the Blacks or Negroes; America by the Yellow men, Mongolians, or Finns, who, at an extremely remote period, spread westwards by way of Behring Straits and the frozen tundras of Siberia into Europe, then just emerging from its latest glacial covering.

Central Asia, from the Caucasus to the mountains of Manchuria, and from the Himalayas, on the south, to the Polar regions of Siberia, on the north, was the home of the Caucasian, or white man. This district was better watered and of a milder climate than at present, and here the ancestors of the white races, while Finns and Negroes were equally drowned in savagery, elaborated their primitive civilization. Our earliest knowledge of them represents them to us as fighting from chariots.

The precise reasons why they left their homes in Asia we, of course, can never tell. It may have been due to

the pressure on their eastern borders of the advancing hordes of yellow men out of America, a part of whose tribes, as has been said, travelled westward into Europe, while the remainder pushed south along the shores of the China Sea, and amalgamated with the Negroes they found in possession, to form the nations of Malay. It may have been, more probably, owing to war among themselves, or the pressure of their own populations upon subsistence. At all events, induced by some such reasons, numerous tribes and nations of the race abandoned their original habitat, and pouring down from the uplands of Central Asia, by means of their superior strength and courage, and their monopoly of civilized arts, they easily conquered both Negroes and Finns, and overran all Southern and Western Asia, all Europe, and the northern shores of Africa.

But since the divisions of the human family, though so unlike one another, differ from the sub-species of the animal world in that they are capable of inter-marriage, and of the production of fertile offspring, it followed that, as a result of the white man's conquests, miscegenation took place, and all the nations of today, with any pretensions to civilization, are the product of crossings—Caucasians crossed with Finns, or with Negroes, or with both. Nor was miscegenation effected once for all, but the crossings have been continually repeated, both as between the derived races among themselves, and as between those derived races and nations of purer stock. And despite such continual intercrossings it is nevertheless obvious

\*Abstracted from the Southern California Practitioner from the Nineteenth Century, July, 1911.



that nothing like complete amalgamation of the blood has, so far, taken place, even in those parts of the world where the different races have been brought into closest contact. A typical Scandnavian, for example, differs immensely from a Lapp, or an Arab from a Negro, though we know that these races have lived side by side for many thousands of years.

No full-blood Negro has ever been distinguished as a man of science, a poet, or an artist; and the fundamental equality claimed for him by ignorant philanthropists is belied by the whole history of the race throughout the historic period.

It is generally agreed among scientists that there is a Negro strain in the Mediterranean peoples both of Europe, Asia and Africa. Gobineau accounts for this as follows: Miscegenation having taken place in Asia and Africa, when the Roman Empire extended its dominion over these continents, a certain homogeneity of type was produced throughout the Mediterranean world. owing to commercial intercourse, the movements of the legions, and more particularly to the importation into Italy, by victorious Roman generals, of enormous numbers of slaves out of the populous provinces of Syria, Egypt and Carthage. Thus by Syrian influence

Rome became orientalized, and the Romans of the Lower Empire must be regarded as Caucasians with a derived Negro cross.

China has produced a philosophy but no religion, a series of stable governments but no great tyrants or conquerors. Its civilization is tame, materialistic, and very durable. In Europe the invading white race found itself in a country and climate suitable to its health and increase, and inhabited, comparatively thinly, by the yellow tribes of the Finns. The blend of Aryan with Finn, Aryan predominating, produced powerfully constructive warrior nations of the masculine type, such as the Romans of the Republic, British Empire and colonists, and the Germans of history, and of the present day. But Rome, conquering the Semitic and Hamitic nations of Asia Minor and North Africa, in whose blood the Negro strain predominated, absorbed their population not only in her empire, but, by a process too complicated to be described here, into her European territories and her seat of government. Hence Rome became luxurious, artistic, and the religious center of the western world, but, losing her more virile qualities, fell, politically, before the more forceful peoples of Northern Europe.

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### BUT ONE SPECIES OF MAN.\*

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We may take it that there are four important color divisions of the one species, *Homo sapiens*. The White, or Caucasian; the Yellow,<sup>1</sup> or Mongolian (to which last may be referred the Amerindians (American Indians) and Malays, though both these races display undoubted signs of ancient hybridism with the White stock); the Brown mixed races—Hamites, Dravidians of India

and Ceylon, Malagasy, Melanesians and Polynesians; and the Negro, or Black sub-species. To these divisions might be added some half-million Australoids, Papuans, and other kindred "Neanderthaloid" peoples of Asia and Australasia, the first-named of which represent very nearly the basal form of *Homo sapiens* and the Eolithic men of Pleistocene Europe. But these surviving

\*Abstracted, for the Southern California Practitioner, from a paper by Sir H. H. Johnston in the Contemporary Review, August, 1911.

Neanderthaloids, precious as they are to the scientific anthropologist, count for too little in the world's future history to be worth discussing from the political standpoint. They will either die out, or they will fuse into the Brown or Black groups.

The Mongol-Amerindian division of Yellow-skinned men leads in numbers, for it may be roughly calculated at 612,000,000 (586,000,000 Mongoloids in Asia, 16,000,000 Amerindians, and about 10,000,000 European Mongoloids). The Whites, or Caucasians, of Europe, Africa, Asia, Australasia, and the Americas follow next, and amount to about 570,000,000. There are some 300,000,000 hybrid Brown types, such as the Southern Moors, Tuaregs, Teda, Egyptians, Abyssinians, Somalis, the bulk of the Dravidian inhabitants of India and Ceylon, the Polynesians, and the peoples of Madagascar; and lastly, there are approximately 135,000,000 Negroes and Negroids (109,000,000 in Africa, 24,500,000 in the Americas, and 1,500,000 in Southern Asia and Oceania. The Negro does not make a bad fourth in these divisions, for his 135,000,000 are by no means a negligible quantity as a world force, and count for more at present in world-politics than the 433,000,000 of Chinese.

The Amerindian tribes, or aborigines of America (excepting the Eskimo, a well-marked Mongolian race), partake almost of the nature of hybrids, being certainly an ancient fusing between the Proto-Caucasian and the Proto-Mongol, with a preponderance of Mongolian characteristics and an evident though as yet unexplained relationship with the Polynesians, Maylays, Dayaks, and other similar Mongol-Caucasian hybrids of the Malay Archipelago. (It is interesting, by the by, from both an anthropological and political standpoint, to note the readiness with which the Chinese and Japanese immigrants into North-west, West-central, and South America

fuse materially with the Amerindian aborigines, as though both stocks felt instinctively their underlying affinities. In Yucatan, Guatemala, British Honduras, the Chinese are infusing new vigor, physically and mentally, into those Malay Indians, whose ruthless treatment under the closing years of Porfirio Diaz's rule was one of the few blots on that great Mexican's administration.)

In brain development. The average (relative) size and weight of the White man's brain is a little greater than it is among Japanese, Chinese and Eskimo, who represent the "brainiest" among the Yellow peoples; much greater than among Negroes and Australoids, and many of the brown races, except the civilized peoples of India, who in brain development are almost on a par with Europeans and white Americans. Apart, however, from material tests of brain bulk, there is the indirect proof of the mental superiority enjoyed by the White man in his literature and science, his inventions and discoveries.

In physical development. The White man, especially of the Nordic variety, is, when averages are taken, taller and stronger than any other division of the human species. As regards stature he is vied with here and there by the tallest negro tribes, by Polynesians, and Northern and South American Indians. It may be even that no White community or clan of a hundred thousand individuals can match in average height of men and women the Turkana of Lake Rudolf (East Africa), the Madi people of the Lado province, or the Ba-ila of the Shukumbwe district in Northern Rhodesia. But against these exceptionally tall negroes (in some tribes of whom there is evidence of ancient Caucasian intermixture, through the Hamite) must be set many millions of short-statured black men, just as tall Amerindians of central North America or of Patagonia and Chile are far exceeded in number by the short Amerindians of Central and South

America. The tall Polynesians are partially of ancient White descent, as are the splendid-looking soldiers of the Indian Army, coming from Northwest India.

The weight-raising strength and muscular development of the White race throughout the world probably attain a higher average than those of the other divisions of human species. The stature, physical development, and weight and size of brain in their womankind is markedly superior likewise; and I believe it will be found on a careful examination of such statistics as exist, that the disproportion in size and brain-power between men and women in the White race is less than in the other sub-species or varieties, while as regards physical beauty, it is really only amongst the White people of the world that the women are more comely than the men. Amongst the savage races the women are almost invariably ugly and ill-formed.

The Eskimo came to America via Siberia, bringing with them many notions invented by the Proto-Caucasian in semi-glacial Europe and Asia. Much later they certainly borrowed their stone kettles or cauldrons from the Norse invaders of Greenland and Labrador. The Amerindians would seem to have had a considerable element of Proto-Caucasian in their blood and brains. This is not surprising when we realize that a characteristic "Proto-Caucasian" type, the Ainu, still extends his range to the Aleutian Islands, and formerly inhabited Kamschatka and all Saghalien, and traditionally knew "better days" of higher culture and greater enterprise than are experienced now by his degenerate descendants in Northern Japan. It may, indeed, be due to the element of Proto-Caucasian in their blood that the Japanese—many of whom are really white in complexion—have felt impelled during the last fifty years gradually to separate in sympathy from the mongol community, and to range themselves along-

side the civilized nations of Europe and America.

There is

BUT ONE SPECIES OF MAN LIVING.

on the earth at the present day, and the utmost rank which can be given to his divergent types is that of the difference of one sub-species or variety from another. This statement is proved by the complete fertility between all known types of existing Man, and the continued fertility, again, of their mixed descendants.

THERE ARE NO HUMAN MULES.

Nowhere in the world exists a pure White race, in whose ancient ancestry there has been no intermixture whatever with the Mongol, the Negro, or the Dravidian, and a White race which receives no rill of blood from the other human types from time to time may die of physical degeneration. For myself, I seem to see the prospect of great racial developments in Asia by a mixture of blood. Russian Siberia is going to play a great part in the future development of Asia. The White type which is being developed in that region is of fine physique and of no mean mentality, and is mingling already with the indigenous Mongols, is intermarrying with Japanese, and even Chinese, and producing offspring of good appearance, physical vigor and mental alertness. We should indeed be living in a fool's paradise if we continued to assume that a negro could never attain to the high mentality of a white man, or equal him as an inventor, an artist, a strategist, a writer. I have read books by pure-blood Negro authors, recently written and published in Haiti, which gave one the keen delight of the best French literature. I mean for example, the works of Mons. Fernan Hibbart. I have seen paintings and black-and-white drawings by Negro artists in Paris, in the British West Indies, or produced in Brazil, which any honest connoisseur would have singled out as being genuinely good, original and



clever. The Negro gift for music and genius for acting do not need any expatiation on my part to affirm their existence. There are Negro composers, musicians, actors and vocalists of no mean order today in Brazil, the United States and the West Indies, and will be, before long, in South Africa and West Africa. I could also cite many a skilled Negro surgeon, physician and dentist whom I have encountered in America or West Africa. There have been great Negro generals in the history of Haiti, of Venezuela, of Columbia, and of India and North Africa. Indeed, successful Negro soldiers actually created sovereign states in Western India, one or two of which have lasted to this day. I should not be surprised, within the remainder of my lifetime, to see emerging from the Negro ranks in America, West or South Africa (Islam stunts the mental growth of the Egyptian or French Sudan) a "first class" botanist, philologist, electrician, engineer, statesman, or novelist.

The North American Indian—Amerindian, as I prefer to call him—is going to be heard of before long in several of these great careers and professions. So is the Brazilian "Mameluco"—half Amerindian, half Portuguese. So is the Hindu, if he can slough the silly and foul accretions of his once pure and transcendental religion; and so are Syrians, Berbers, Arabs and Turks, if they can detach themselves from the profitless doggerel dictated by Muhammad of Mekka to Jewish and Arab scribes and Abyssinian slaves. The men and women of China may yet astonish the civilized world even more than Japan has done if they can clear their minds of cant, and exchange that slavish worship of a semi-mythical past for a vivid realization of the present; in short, if they will put themselves to school with the West, and apply the best and most modern of our teaching to the ordering of their own immense domain.

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**Purified Opium  
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**SVAPNIA** possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

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*Sample and literature on application.*

## RUDYARD KIPLING'S MOTHER.

On November 23 there died at Tisbury in England an aged lady who—among the many satisfactions of her life—had experienced the crowning pleasure of seeing her son recognized as one of the greatest writers of his time.

Mrs. John Lockwood Kipling, the mother of Rudyard Kipling, was the oldest daughter of a Wesleyan Methodist minister, the Rev. George B. Macdonald, and sister of the Rev. Frederick W. Macdonald, ex-president of the Wesleyan Conference. For thirty years she lived in India, where her husband was in charge of art instruction in the government schools. She was a woman of open and well-stored mind and was brilliant in conversation—one of a family of remarkable brothers and sisters. Of late years,

with the failing of her health, she did not lose her cheerful courage. When unable to sleep it was her custom to rise very early and watch the dawn break over the familiar fields. Her thoughts at such times she expressed, not long before her death, in these lines:

#### AT THE DAWN.

As from my window, at first glimpse  
of dawn,  
I watch the rising mist that heralds  
day,

And see by God's strong hand the curtain drawn

That through the night has hid the world away,

So I, through windows of my soul,  
shall see

One day, Death's fingers with resistless might

Draw back the curtained gloom that shadows Life,

And in the darkness of Time's deepest night

Let in the perfect Day—Eternity.

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## THERAPEUTICAL HINTS

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The antitoxin "serum" and the antitoxin "globulins" are universally recognized as pure and absolutely reliable. Park, Davis & Co. supply both and give each physician an opportunity to make his own selection.

If the young pupil is fortified by the toning and building up of blood and tissue, the prevalent school infections, measles, scarlet fever, and diphtheria are much more likely to pass them by. Pepto-Mangan (Gude) is especially indicated as a blood tonic and general reconstituent for children, as it is palatable, easily taken, free from disturbing effect upon the digestion, and devoid of constipating action. It increases appetite, restores strength and general vitality, reinforces the hemoglobin content of the blood and acts as a prompt and efficient tonic and reconstituent for patients of all ages.

Dioviurnia is a combination of well chosen drugs which have a correcting predilection for ovarian and uterine tissues and in conjunction with Neurosine, will serve to bring the patient back to normal vigor, the one correcting irregularities of the functions peculiar to women while the other controls the nervous storms which arise as a result of the primary disease.

An elixir of iron, quinine and strychnine in which the intense bitterness is destroyed, is certainly a great desideratum. After long experimentation, the Lilly laboratories have developed a formula, offered as Coco-I. Q. & S., which is bitterless and palatable. It also contains from two to four times as much quinine as the ordinary elixir. Coco-I. Q. & S. contains one grain of quinine sulphate to each average teaspoonful, 96 minims, whereas most elixirs represent but  $\frac{1}{4}$  grain of quinine to this volume. The quinine in Coco-I. Q. & S. exists in the unchanged form of crystals suspended in a chocolate flavored, syrupy medium, which masks their bitterness, also that of the strychnine. Drop a postal to Eli Lilly & Company, Indianapolis, for sample.

Bloodless Phlebotomy is the name that is given for the therapeutic effect of antiphlogistine. Send a postal to the Denver Chemical Manufacturing Co., New York City, and they will send their monthly magazine regularly without charge.

The length of time necessary for the Bulgarian bacilli to become predominant and overcome the putrefactive bacteria depends largely upon the number of the latter germs. With this in view it is

**Colden's**

**Liquid**

**Beef**

**Tonic**

It so sharpens the appetite, and is so effective when employed in the various forms of indigestion resulting from deficient digestive secretions and from gastro-intestinal inactivity, that it is commended by physicians who have prescribed it in such cases.

It has been found no less reliable and helpful during convalescent periods and in overcoming certain of the consequences of old age. When Anæmia is a complication, Colden's Liquid Beef Tonic with Iron is indicated.

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Sample with literature sent to physicians on request.

**THE CHARLES N. CRITTENTON CO., 115 FULTON ST., NEW YORK**

advantageous, before commencing the exhibition of the ferment, to weaken the enemy or drive it out by means before stated. Usually Abbott's Saline Laxative should be given each morning, for two or three mornings, and the W-A Intestinal Antiseptic three or four times daily for three or four days—at least for forty-eight hours. After a sufficient time has elapsed, and you are sure of the complete elimination of the antiseptic, say forty-eight hours, the administration of the ferment, in the Galactenzyme tablets, should begin. It is well known that the bacillus bulgaricus will not multiply in the presence of the antiseptic, and therefore, we must be sure that there is no antiseptic present. In other words, we must allow sufficient time for the elimination of the antiseptic before we start with the ferment. This method will always produce results. Practical ex-

perience, as well as scientific research, has proven that in this way immediate results are obtainable, with practically no failures.

Close application to school duties frequently lowers the health of a child and makes it an easy prey to prevalent winter infections. These may be largely avoided if the child be built up to the point where the normal powers of resistance will protect it from those diseases to which a weakened organism easily succumbs. For this purpose nothing is the peer of Cordial of the Extract of Cod Liver Oil Compound (Hagee). Containing the active principles of cod liver oil, supplemented by the addition of the hypophosphites of sodium and calcium, it is a tissue food of the highest order and lends to the little student its contained nutritious elements. Given systematically to those children in need of such an



agent, it will be found of decided advantage in helping them through school.

H. K. Mulford Company, Philadelphia, issue a very practical booklet giving in detail the treatment of Rabies by the Pasteur method. It is so complete that a physician in an isolated place can treat a case just as well as it can be done in a metropolitan institution. This booklet will be sent free on request.

Experience has shown that during the second or "teething summer" weakened stomachs are strengthened, faulty metabolism is corrected, fatigued heart and circulation is supported, and many a tired, worn-out nervous system is restored to its proper tone by the systemic and intelligent use of small doses, 20-30 drops, according to age, of Gray's Glycerine Tonic Comp.

A Garden Nurse is now one of the regular attaches of the California Hospital. This institution has extensive tropical gardens and makes a specialty of the open air cure, keeping almost all of its patients in wheel chairs and cots out in the garden during the day. A Garden Nurse, especially selected, sees that patients who are convalescing are entertained, that the chairs and cots of congenial patients are near each other and is constantly on the watch to make life as comfortable as possible. Three years ago the California Hospital established a daily paper for nurses made up of the news of the day culled from the Los Angeles daily papers. This is read to one hundred and twenty-five nurses at luncheon, and has proved to be a great success.

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## CALIFORNIA HOSPITAL NURSES' ALUMNAE NOTES.

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Miss Margaret E. Waller, '01, who for several years has been very successful as superintendent of the Bard Memorial Hospital at Ventura, Cal., has been enjoying a few weeks' vacation, part of the time at Strain's Camp, Mt. Wilson, and part of the time with her brother and his wife at Olinda. The Bard Hospital was closed for repairs during the month of August and a part of September, and we understand it is to be opened with a training school. We wish Miss Waller much success in her work.

Miss May McDonald, '00, who with Miss Donnelly has been in charge of the St. Ann's Maternity Hospital, has given up the work there and the hospital has been closed. Miss McDonald and Miss Donnelly will have a rest and vacation before taking up any other work.

Miss Marie Limegrover, '10, was married in September to Mr. J. B. Brown. Mr. and Mrs. Brown will make their home in Tulare county, Cal.

The many friends of Miss Jessie Bice Freeman, '05, will be glad to know that Mr. and Mrs. Freeman are now living in San Francisco.

Miss Stella Corbett, '04, has been in Berkeley, Cal., for some time.

Miss Louise Kent, '04, president of the Alumnae Association, has returned from her visit in Oregon, and reports a most delightful time, with health and strength fully restored.

Miss Agnes B. Treat, '01, is spending a few weeks in Los Angeles. Miss Treat has been nursing in Pomona for several weeks.

Miss Harriet Prebble, '05, who has been visiting in the east for some time, has returned to Los Angeles and taken up her work.

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The strong, almost fierce wine from Algeria is the foundation of the largest amount of red wine consumed in France.

“ plain words for facts and facts convince.

In the practice of medicine, results count and as pain is the foremost symptom which induces the doctor's call, its prompt relief is the most convincing argument of his ability.

Pain, one of the cardinal symptoms of inflammation, is the result of nerve pressure from infiltrated tissues. Its relief by the application of hot moist heat, so superiorly presented in the form of antiphlogistine, is prompt and positive.

In Tonsillitis, Bronchitis and Pleuritic involvements, the results obtained by the use of antiphlogistine have convincingly demonstrated its value over other forms of applying moist heat, and the reliance and confidence accorded it by the medical profession are but a further proof of its superior therapeutic worth.”

## SANTA FILOMENA

Longfellow's Tribute to Florence  
Nightengale.

Whene'er a noble deed is wrought,  
Whene'er is spoken a noble thought,  
Our hearts, in glad surprise,  
To higher levels rise.

The tidal wave of deeper souls  
Into our inmost beings rolls,  
And lifts us unawares  
Out of all meaner cares.

Honor to those whose words or deeds  
Thus help us in our daily needs,  
And by their overflow  
Raise us from what is low!

Thus thought I, as by night I read  
Of the great army of the dead,  
The trenches cold and damp,  
The starved and frozen camp—

The wounded from the battle-plain,  
In dreary hospitals of pain,  
The cheerless corridors  
The cold and stony floors.

Lo! in that house of misery  
A lady with a lamp I see  
Pass through the glimmering gloom,  
And flit from room to room.

And slow, as in a dream of bliss,  
The speechless sufferer turns to kiss  
Her shadow, as it falls  
Upon the darkening walls.

As if a door in heaven should be  
Opened and then closed suddenly,  
The vision came and went,  
The light shone and was spent.

On England's annals, through the long  
Hereafter of her speech and song,  
That light its rays shall cast  
From portals of the past.

A Lady with a Lamp shall stand  
In the great history of the land,  
A noble type of good,  
Heroic womanhood.

Nor even shall be waning here  
The palm, the lily, and the spear,  
The symbols that of yore  
Saint Filomena bore.

---

HYDROPHOBIA SKUNK BITE.—On Aug. 17 A. T. McDaniel was bitten by a small spotted skunk known to exist in the southwestern part of the valley. The bite of this animal is known to produce hydrophobia, unless the person bitten is given the Pasteur treatment. Mr. McDaniel lost no time in calling upon Dr. C. E. Arnold, who immediately cauterized the wound and telegraphed for the Pasteur remedy, which arrived in a short time and was immediately applied. The treatment was concluded Sept. 16, and Mr. McDaniel is feeling, outside of the soreness accompanying hypodermic treatment, no bad effects.—*San Jacinto (Cal.) Register*.

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# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, NOVEMBER, 1911.

No. 11

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and DR. WILLIAM A. EDWARDS.

## A CASE OF SPOROTRICHOSIS.\*

BY ANSTRUTHER DAVIDSON, A.M., M.D., LOS ANGELES, ASSOCIATED PROFESSOR  
DERMATOLOGY, COLLEGE OF PHYSICIANS AND SURGEONS,  
UNIVERSITY OF SOUTHERN CALIFORNIA.

L. A., a street sweeper, aged 51, when first seen on May 16, 1911, gave the following history. Fourteen months previously he abraded the skin on his right shin with a hay hook. The resulting sore gradually increased to its present size and has refused to heal. Seven months after this injury lumps resembling the tumors now present first appeared on his left arm. These gradually enlarged, became red, ulcerated and discharged a sero-pus. The resultant ulcers, after attaining the size of a quarter, remained practically unchanged, in spite of constant treatment. One month after the arm became affected a sore presented itself on the left temple. For some months before the present sickness manifested itself he did not feel very well, and on the advice of a friend took potassium iodide as a blood purifier. When the skin lesions appeared he consulted his medical adviser, who considering them specific, increased and continued the iodide. He denies all possibility of syphilis.

On the right shin is a shallow, dull-looking ulcer the size of a dollar. Scat-

tered on the lower half of the extensor surface of the forearm are six punched-out ulcers with thickened margins, colored bluish red. Below these and just above the wrist are two tumors large as a hazel nut, with evident cystic contents, and with the skin reddened and threatening to rupture. The ulcer on the temple is the size of a half dollar.

Suspecting that the case was one of sporotrichosis, I promptly withdrew the contents of one of the tumors. A culture on an agar slope kept at room temperature in the month of May showed a commencing growth on the fourth day, which rapidly expanding into a white felted rosette that soon spread and covered the whole slope. In age a dirty-brown pigment usually develops. Two cultures taken from a tube inoculated five months ago showed growths resembling the original, but one developed pigment and the other did not. The tube I show you has a very heavy pigmentation, yet the culture it was taken from developed no pigment. There is no liquefaction of the mass.

\*Read before the Los Angeles County Medical Association Meeting of October 6, 1911.

This fungus has apparently abundant vitality and is probably common enough in nature, affecting both the animal and vegetable world. Beurman has found it in decaying vegetable matter and Hyde and Davis have drawn attention to the possibility of infection from the horse, subject as it is to pseudo glanders, which is characterized by a lymphangitis produced by a mycotic fungus. This man it may be noted was a street sweeper and was first injured by a hay hook. It is very evident that there are more than one species of this fungus affecting man, or the same species is heteromorphous in its habits, as the illustrations given by various authors by no means agree.

Where a fungus like this is abundant in nature and capable of growing in various media animal or vegetable, it is quite possible that some ulcers originally simple may be rendered intractable in healing on account of secondary infection by the sporothrix. There is no reason either why a syphilitic subject may not also be a victim of the sporothrix so that the Wasserman reaction need not necessarily negative the diagnosis of sporotrichosis.

Much has to be done before the life histories of these fungi are worked out and the various species differentiated. Some of the endowed research institutes where the workers are paid a liberal salary for enjoying the pleasures of the microscope might readily acquire cultures from the many cases now reported and by cultural methods under varying conditions determine many problems that are now obscure.

This disease, first discovered by Dr. Schenk of Baltimore, in 1889, has now been met with in most of our states, in South America and Europe, but so far as I am aware it has not previously been reported from this state.

In its typical form it is easily diagnosed. There is usually the history of an injured finger and the subsequent formation of indolent, subcutaneous abscesses

or tumors along the line of the lymphatics, which frequently ulcerate and show no disposition to heal. Those lesions, though somewhat painful, do not seriously interfere with ordinary labor. After ulcerating, these sores appear as punched-out or crater-like lesions, and more closely resemble gummatous ulcers than anything else, and this is the reason why those lesions have gone so long unrecognized.

In its atypical form it may, as in this case, show in scattered lesions over the body, instead of spreading by continuity from the original focus. In such cases it is the more readily mistaken for syphilitic or tubercular lesions.

This disease has been found attacking the bones, joints and mucous membranes. The larynx is not infrequently attacked and the ultimate recovery of these cases probably form the chief bases for the cure of laryngeal phthisis by tuberculin.

Apart from the appearance of the lesions suggesting sporotrichosis the laboratory diagnosis is usually easy. In this case examination of the scrapings from one of the ulcers showed fragments of mycelia and spores on the filaments. Cultures taken from both unbroken tumors gave typical cultures, like that here shown. As K. I. is supposed to be almost a specific in these cases it was continued in reduced doses and the wounds were treated locally with iodine tincture. They quickly responded to treatment, even the tumors disappearing under its influence. In six weeks all had healed.

---

Several of these cases have been observed in Kansas and reported in the Journal of the American Medical Association. Most cases give a history of injury as the beginning of the condition. There is no glandular involvement and along the line of the lymphatics these subcutaneous abscesses form. These are not like gumma, for instead of a round cystic tumor, they are corrugated, and

when these things burst they leave this intractable sore that won't heal. That is its one resemblance to syphilis. In some cases, instead of this punched-out ulcer, you have a warty condition that gives it the appearance of tuberculosis. The lesions may even affect the internal regions, even the lungs, and it is not at all infrequent in the larynx. The spores have been found in the sputum. But they all have this characteristic, that there is no mistaking the culture when you get it. The first specimen I took from a scraping of the ulcer. We find the mycelia on two of the slides with the spores attached. In the second specimen, there were two tumors unbroken and we got the same culture from both. This fungus is a mould fungus and one of the most common things in nature. They have been found as a common vegetable mould, and it is quite conceivable that it may be fairly common in the human being. Davis and Hyde have found that a similar condition affects the horse and is known as pseudo-glanders. This man is a street sweeper and it is just possible that all these cases are contracted from horses. It is definitely known that many cases typical enough have shown no sign of infection. Possibly many of our intractable ulcers may prove to be this condition. The iodide of potash seems to be almost a specific. This man was taking the iodide of potash before he got this trouble. But you

can give a man who has had syphilis the iodide of potash and it will do no good unless he has a visible lesion. I put this man on the pure tincture of iodine and painted the lesions with it and in six weeks they were all healed. The gummatous sore leaves a soft, uniform, white circumscribed spot, while these are usually irregular, and the ulcer does not slough out as the gummatous sore does, but sloughs at two or three points. Stelwagon in his latest work has some good illustrations, but ordinarily it has not been much observed. Yet this cannot be a new disease. We must all have seen it before, but in looking back over my experience, I can recall but one case that I think was this condition. The patient was a Russian with a lesion on the forehead which never improved. The case was under observation for some months and finally dropped out of sight.

The Chairman: Do you believe that this is a primary or a secondary infection?

Dr. Davidson: It is undoubtedly a primary infection.

Dr. Lasher Hart: I saw two or three of these cases in the New York Skin and Cancer Hospital, and we treated those with K. I. internally and pure ichthyol externally. In one case we could not find the spores after x-ray treatment, but after discontinuing the x-ray treatment for three weeks we could again find the spores. 544 Wilcox Building.

## THE EMERGENCY SURGERY OF THE HAND.

BY JOHN E. BACON, M.D., CHIEF SURGEON MIAMI COPPER CO., MIAMI, ARIZ.

Precept, printed word, experience, are the great sources of knowledge; and the greatest of these is experience. Exceptionally does experience count in the treatment of those mangling injuries of the extremities which make up so large a proportion of the work of the surgeon in mining camps and industrial commun-

ities, but, unfortunately, experience exacts heavy toll for her benefits, in the shape of contractures, ankylosed joints, faulty stumps and deformities without name or number. Therefore, it seems time, the results of one's experience, emphasizing that which seems good and condemning that which is bad, in order

\*Read before the Gila County Medical Society, October, 1911.



to help to crystalize into accepted forms the principles, which, if studied and practiced, will tend to lead us all toward better end-results.

There is no branch of surgery more important than this, or any worthy of more painstaking study, for the reason that almost all patients presenting these injuries are of the laboring class whose very existence depends upon the integrity of hands and feet. A surgeon who saves the right hand of a mechanic, preserving largely the functions of this perfect anatomical machine, has accomplished almost as much as the one who removes the gangrenous appendix or liberates the clot formed by a ruptured meningeal vessel and stops the flow of blood—though the one is minor and the other major in rank. For, while the major procedure may save life, the minor operation, with its tedious detail of after care, saves him his ability to earn his living, which is just as important. This arbitrary classification into major or minor is unfortunate in its effect, both upon patient and surgeon alike, for while the patient with the appendicitis will have none but the best he can get to open his belly, he will fly to the nearest M.D. sign when only a finger is involved; so, too, some surgeons who, fully gowned, rubber gloved, surrounded with sterile towels and with all detail dictated by modern surgical methods, will carefully and neatly remove the offending appendix—may, and often does, inspect carelessly an incised wound of palm or digit and direct the interne or surgical nurse to apply a dressing.

It has been stated, and with much justification, that the result of a bullet wound rests with him who applies the first dressing, but in no field is this more true or more important than that of minor surgery. There are three steps in the care of these injuries, each as important as the other, none of which can be neglected with impunity. These

are: Disinfection, restitution and immobilization.

Patients with lacerated and crushing injuries of the extremities are usually received with the wounds full of oil, dirt, small rocks, hair and many other kinds of foreign bodies. They are usually bleeding freely, if recent. The first thing to do is to stop the bleeding, and for this purpose a sterile sponge pressed against the bleeding point is usually sufficient, but if it fails then a pair of hemostats should be applied to the bleeding point. A few pairs of different sized hemostats, a needle holder and a few needles should always be kept sterile, wrapped in a sterile towel, for emergencies, for one cannot wait to boil them when a large artery or vein is being held by an improvised tourniquet or manual compression. After the bleeding is controlled, one should simply cover the parts with a sterile towel, and proceed to scrub his hands and arms exactly as he would for a major operation; don a sterile gown, pin sterile towels about the parts and proceed to the vital part of the matter, which is the preliminary disinfection. The wound being covered with sterile compresses, the entire skin of the part should be shaved, then scrubbed with gasoline, containing 1 part of crystals of iodine to each 1000 parts of gasoline, until all the grease has been removed. This calls for time and patience, and it cannot be hurried. Next comes green soap and water for five to eight minutes, because it cannot be scrubbed surgically clean in less time than that. Next a 1 to 2000 solution of bichloride of mercury for two minutes, and finally mop the surface carefully all over with a sponge soaked with alcohol; another sterile towel should now be pinned around the part, the sponges removed and the wound inspected. If there is grease in that, too, then the gasoline must be poured into the wound until it is removed, after

which a gentle stream of a weak antiseptic solution is to be employed, washing away dirt and flooding the entire field until it looks clean. Now sterile rubber gloves should be put on and the wound thoroughly studied; meanwhile, with sterile forceps, removing any particles of dirt that may be seen, and lifting the parts exposed until the deepest part of the wound has been patiently irrigated, flooded, cleaned and examined, the damage recognized, and the necessary operative steps determined.

This mechanical cleansing is probably the most important feature of the work, for it is very doubtful if there is much chemical disinfection accomplished. The value of solutions of bichloride of mercury in recent wounds may be seriously questioned, owing to the coagulating effect upon the finest tissues and upon the retained blood. Surely after its use in strengths of from 1 to 1000 to 1 to 3000, there is much more serous discharge from the wounds than there is after irrigation with less irritating solutions, and those tissues which have been coagulated and killed by it form an ideal medium for bacterial growth after the antiseptic effect has passed away.

Much less objectionable in this respect and quite as efficient as a germicide, is the solution of chlorinated soda, known as Labaraques solution, which the writer has employed, in strength of 1 part to 16 parts of sterile water, for nearly twenty years with satisfaction. It does not destroy any tissue or coagulate blood, and used as a wet dressing promotes granulation and acts as an antiseptic at the same time.

Strong solutions of bichloride of mercury, carbolic acid, lysol or similar germicides, are contraindicated in the treatment of recent wounds of all kinds. The only possible exception being iodine, which may be employed in cases where the mechanical cleansing cannot be satisfactorily carried out, and always

in cases in which infection has begun or is apparently certain to occur. Tincture of iodine is efficient in 50 per cent. strength of the U. S. P. formula, and if used at all should be used freely and fearlessly by pouring the part full and then mopping up the excess with sterile sponges.

It would be impossible in a paper of the length this is to be, to even outline the different steps demanded by the many different conditions met with, therefore, the guiding principles only can be mentioned. Nowhere is true conservatism rewarded more brilliantly than in those distressing cases in which the hand appears as a mass of bloody rags and comminuted bone. The temptation to give it up and complete the destruction by a nice clean amputation is often great, but it is not to be thought of in these days of constructive surgery. There are but two indications for amputation of digits or thumb—these are when the member hangs by shreds of skin and is utterly without blood or nerve supply at all, and compound comminuted fractures of phalangeal joints, where a stiff joint or flail would be worse than no finger at all. Multiple compound fractures of metacarpal and phalangeal bones are not indications for amputations, many authorities to the contrary notwithstanding, if, and this IF is to be spelled in capitals, the preliminary disinfection has been done as it should have been done.

Having then removed any member that must be lost, proceed next to identify the structures remaining; clamp all bleeding points; test each bone for fracture, recognize each tendon, repair at once all divisions, partial or complete, with fine linen and outline the important tendon spaces. With fine needle and catgut suture the periosteum of each fractured bone back to its place. Identify each tendon and try to enclose it in its ruptured sheath. If the sheath cannot be found, cover carefully

by suturing strands of fascia and fat, but try to cover all the exposed tendons. Trim away all tags of tissue that seem devitalized. Provide for drainage by small folded or rolled strips of gutta-percha tissue, and lastly, arrange the skin as well as may be to cover in the exposed soft parts. The skin should be disposed to best advantage, but not sutured completely. It may be well to make use of certain retention and tension sutures to control the resulting scars and to secure the minimum of uncovered soft parts, but never close it completely, and the few sutures used in the skin should never be tied tightly enough to be under tension.

The third step consists in the application of some form of splint or support; and to secure results, whether fracture is present or not, this immobilization is absolutely essential. There is no injury of the hand or fingers, clean or infected, simple or compound, that will do as well without surgical support. There is no single factor, other than the presence of the germs themselves, that contributes so largely to infection of a wound of the hand as allowing it to swing at the side or carried about by muscular effort, supported only by being thrust into the buttoned coat front. Every injury of the hand should be properly immobilized by splinting until healing is well under way. Splint the whole hand and forearm for any serious injury, even of one finger, paying especial attention to padding the splint. Make it conform to the curves of the forearm and hand so that it feels comfortable to the patient. In cases of extensive laceration of the whole hand a large ball of cotton placed beneath the palm in such a way that the fingers are separated from each other and slightly flexed is most comfortable. Dress with a large mass of gauze, moistened well with Sol. Chlorinated Soda, one part to

16 of sterile water, or of Bichloride Sol. 1 to 5,000. This dressing extends from the tips of the fingers to above the elbow and is retained in place by a loosely applied gauze bandage. Place the limb in slight elevation and keep the dressing moist. If no infection develops in forty-eight hours the dressing may be removed under full antiseptic detail, the drainage removed and a better approximation of the skin secured by a few additional sutures, but even at this time no tension will be well tolerated.

If infection occurs after all of the above precautions have been observed, there is nothing to do but remove all stitches and open up the entire wound to its depths and also to promptly open places beyond the wound to which the infection has evidently spread, thoroughly opening the synovial sheaths involved. The same principle of functional rest on splints still applies and wet dressings are indicated until the process is limited. Hot baths in a mild antiseptic solution once a day are very useful; but in giving the baths motion of the parts should be avoided. Bier's hyperemia treatment here finds a useful field, and it should always be employed if possible.

Personally, after having had the usual sad experience of the enthusiastic young practitioner, and after having had a large number of these cases under my care, I find that my tendency is to spend more time in cleaning up, to use more soap and water, weaker antiseptics, to avoid tension or rough handling and to insist on absolute rest of the part until function is well re-established, and I believe that the ultimate results are better and better; and in certain cases which seemed beyond hope, the results have so far exceeded anticipation that a healthy optimism nourishes the feeling that, "Where there's life there's hope," if treated with conservatism, patience and time.



## PARANOIA.\*

BY DANIEL H. CALDER, M.D., SUPERINTENDENT STATE MENTAL HOSPITAL,  
PROVO, UTAH.

In all the field of Psychiatry there is no more important problem before the medical profession than Paranoia. It is an almost inexhaustible subject, and one which has been discussed from the time of Hippocrates, who used the term as synonymous with Dementia. The word is given a much wider meaning with some writers than others; it varies according to the views of the author.

A review of the more recent classifications will show that in some, the cases commonly classified as Paranoia embrace many affections recognized under various names. The word "Paranoia" is derived from the Greek, and was originally used to indicate madness or insanity. It is used by many writers in describing conditions in which delusions of persecution are the leading symptoms.

Church & Peterson define Paranoia as a progressive psychosis, founded on an hereditary basis, characterized by an early hypochondriacal stage, followed by a stage of systemization of delusions of persecution, which are later transformed into systematized delusions of grandeur.

Brown & Bannister state essentially the same facts, adding that the affection is not ordinarily accompanied by any rapid or general failure of the reasoning faculties.

Kraepelin says: "This distinctive disease in which delusions of being wronged, and of over self-esteem, develop quite slowly, without independent disturbances of emotional life, or of the will, becoming prominent, we shall call by the name of Paranoia."

Kraepelin's definition brings out very prominently two of the leading symptoms in the diagnosis—the delusions of

being wronged, and exalted self esteem. His definition also distinctly excludes those cases of systematized delusional psychoses of recent onset, associated with other mental symptoms, many of which are found in various other forms of insanity, as for instance, the dementia praecox group, general paralysis of the insane, and alcoholic psychosis. The malady develops slowly and progressively, and extends over many years. The majority of cases occur in those hereditarily defective.

Kraft Ebing states, "He has never seen a case without hereditary taint."

Regis says, "The cause is received as a germ at birth, and develops at the appointed hour under the influence of the slightest cause."

It is certainly most frequently seen in those constitutionally defective, with marked stigmata of degeneration. The progenitors of these cases are usually found to be a neuropathic, alcoholic or insane diathesis. It occurs about equally in the two sexes, and constitutes from two to four per cent. of the inmates of State Hospitals.

The affection is most frequently met with in those of a modest, sensitive disposition, who by virtue of these characteristics, are more liable to be affected by adverse circumstances, such as poverty, loss of property, disappointment, conjugal unhappiness, and difficulties of social life. The principal cause, however, is heredity.

The onset is insidious and progressive, varying somewhat in each case. Usually several years elapse before it is noticed by friends and relatives that the patient is suffering from mental affection, and a physician consulted. In the majority of cases, peculiarities have been noticed from childhood. They are

\*Read before the Utah State Medical Association, October 5th, 1911.

endowed with a considerable excess of egotism, and are eccentric in manner and dress. They incline to be shy, sensitive, irritable, and at times generally ill-disposed; avoid the association of others as much as possible, preferring to remain by themselves, and to devote their time to some mental or manual occupation rather than recreation.

With the complete history of a case, it is learned that the first manifestations of the disease are rather indefinite, exhibiting a general malaise and uncomfortable sensations, with insomnia, and incapacity for work, moodiness and introspection. The family and others regard them as being rather peculiar. In the majority of cases, the most careful physical examination reveals nothing abnormal. Vision, hearing, taste, smell and cutaneous sensations are all normal. There is neither anesthesia nor hyperaesthesia, and the patient is well oriented. There is an apparent increase of the perceptive faculties.

From the cordial greetings of friends, he imagines he is of great importance. It is soon observed that he is materially changed in disposition, having become disgruntled, irritable, and generally discontented. His former apparently pleasant occupation is no longer agreeable to him. The subject has an idea his abilities are not fully appreciated, and that he is deserving of more consideration.

His family life is less pleasant, his wife and children are less devoted and loving, office and business associates are less friendly, and little things worry him. He is no longer successful in his affairs. Everything appears to go wrong with him. He complains of neglect on the part of his family and friends; "people have changed." He becomes distrustful, not only of family and friends, but of associates alike. He is suspicious of everybody, and misinterprets their words and motives.

The exaggerated ideas in reference to importance, ability, and self-esteem, together with those of grievance and persecution, with a delusional concept of everything in general, are constantly present. The importance he gives his false interpretations gradually increases until well marked delusions develop. He experiences uncomfortable sensations in his digestive organs, complains of palpitation of the heart, dizziness, or buzzing in the ears. These functional disorders cause the patient more or less uneasiness, with more or less self-analysis. He continues in this worried, non-communicative and depressed state, which constitutes the first, or hypochondriacal stage, or the stage of subjective analysis.

The symptoms all become exaggerated. He cannot adapt himself to his changed conditions. His queer actions and eccentric manner are observed by the public, who recognize them as abnormal. He asserts his memory is becoming affected. He cannot account for the changed conditions nor why people treat him as they do. He believes he is remarked upon by passers-by, and people standing on the street.

He imagines everything which is said and done by those about him has some relation to himself. The importance he gives his false interpretations gradually increases until well marked delusions of persecution appear, which constitute the second stage, or stage of persecution.

These delusions soon become systematized. The patient refers everything to the hostility of others; and at first speaks of his unknown enemies as "They." These symptoms are not identical in each and every case, yet they follow the usual course of this psychosis. The patient becomes more suspicious and distrustful of those with whom he has to do. He thinks there is a hidden meaning in the words and acts of those about him; that his enemies

are planning against him and trying to poison him; that he is watched at night by a special guard who reports to his enemies. He thinks others in conversation are conspiring against him; that people on the street are making faces at him; that his own family is laying a trap for him; that he is especially referred to by public speakers both from the pulpit and the platform; that newspaper notices and advertisements have direct reference to him.

He now no longer uses the caution which he formerly exercised to avoid noticing openly the hostility of others. Instead, he watches, listens to, and spies upon his supposed enemies. He reviews his past life, dwells upon the imaginary slights and insults he has received, until he is fully convinced that for a long time he has been the victim of systematic persecution. About this time auditory hallucinations appear. He complains of indefinite whisperings. These gradually progress and develop into words, which are soon formed into complete sentences.

The patient is now no longer in doubt about the whisperings. He positively maintains he hears the voices assailing him. The voices are now heard continuously day and night, using abusive, insulting and threatening language toward him. Later on he hears his name called and someone laughing at him. They call him nick-names, and refer to his wife or some other member of his family in the same language. Accompanying or succeeding these hallucinations are those of taste, smell, and general sensibility. He complains of sensations of burning, of electric currents and noxious gases being forced into his body.

While the hallucinations do not always follow in this order, they do so as a general rule. Gradually his suspicions become more narrow, and he thinks he is the victim of a conspiracy on the part of some association, organi-

zation, secret society, or other public body. This suspicious attitude of the patient may end here. However, it more frequently ends by being directed against some member of the family, friend, or prominent person in the community. This is a very unfortunate condition, for it may end in serious consequences to the unsuspecting person—the object of his delusion—and lead the patient into no end of trouble. The patient frequently travels from place to place, and even changes his name in an effort to elude his persecutors. He is now very dangerous to be at large, and liable at any time to homicidal impulses, attacking the first person he meets. After seeking in vain all legal means, the police, sheriff and judiciary, to free himself from his persecutors, he takes the law into his own hands and accomplishes his purpose, either impulsively or with premeditation. He will burn buildings, shoot, cut or stab a person with the most fiendish delight.

The "persecuted" becomes the persecutor, and is certainly one of the most dangerous of the insane. This condition continues for a more or less indefinite time, to be succeeded by the third stage, or period of transformation of personality, in which the ideas of self-importance are elaborated and expanded. The patient imagines he resembles some distinguished person; is the President of the United States; of the "Royal Family;" or some other great personage; the favorite title being "God," "President," "King," or "Queen."

These delusions may continue unchanged for many years, and finally grow weaker and terminate in progressive mental enfeeblement, the last period, or stage of Dementia. The ideas of self-importance developed by the patient, according to Magnan, occur in one of three ways: first, spontaneously; second, by the mediation of the hallucinations; the voices for example, telling the patient he is some great personage; third, as the re-



sult of logical deduction. If so many people, such powerful organizations, "are interested in his downfall, he must, indeed, be some great personage, rightful heir to a throne, on inheritor of vast estates."

Of course, I am well aware that expansive delusions of this character are frequently met with in other psychoses, wherever there is an exaltation of the feelings, as sometimes happens in Mania, General Paralysis, and Alcoholic Psychosis. But the delusions in these instances are changeable and transitory, and lack the systematization so well marked in Paranoia. Here I would wish to point out the persistence with which all delusions of persecution are clung to, and are finally developed into coherency.

It is important to remember that all cases of Paranoia are liable to remission of symptoms for a time, and this interval may last from a few days to several months, when the disease returns with the former symptoms. Then, again, the symptoms may be reversed. Those of the second stage may appear in the first; the symptoms of the first stage may be of short duration, and pass into the second stage; or the second stage may be less pronounced, and the symptoms of the third stage appear in the second; or the third stage may be entirely absent. The onset of the disease is insidious and progressive, extending through the entire life of the patient.

It is scarcely necessary to say the prognosis of Paranoia is most unfavorable. No well established or developed case of Paranoia ever recovers. There are Paranoid states of other mild or acute psychoses which frequently recover under proper treatment; as also do those acute cases with mild, systematized delusions, if properly treated at the first manifestations of the disease. The prognosis in these cases is much better where the delusions show no tendency to expansion.

Paranoia is recognized by the slow, insidious onset, and the progressive system-

ization of the delusions of persecution, coherent thought, and absence of characteristic symptoms of other forms of insanity, from Paranoid form of Dementia Praecox, with which it is very apt to be confused by the presence of mannerisms, negativism, emotional and mental deterioration; from Toxic Paranoia (Alcoholic or Drug) by the history of Alcoholism, or Drug Habit, and much more rapid onset; from General Paralysis, by the characteristic symptoms of the disease; from Melancholia, by its more rapid onset, apprehensive fears, subjective feelings of unworthiness, emotional attitude, non-systematized form of delusions, and early mental deterioration; from the Manic-depressive group by age, sudden onset, history of previous attacks, psycho-motor activity, clouding of consciousness, disorientation, and transitory delusions.

There are no well defined or characteristic pathological changes found in these cases. White says, "Abnormalities in the course of the cerebral vessels and asymmetries, and abnormalities of gyral configuration have been noted."

There is no regular form of medical treatment applicable to this disease. General conditions are to be watched and treated accordingly. Such patients are committed to an institution, which is necessary for the protection of other people, where they receive the benefit of systematic routine, regular mode of living, with out-of-door occupation and exercise, all of which has a favorable effect in modifying the symptoms and bettering their condition generally. From the symptoms herein given there can be no doubt but that this character of person is insane, and of such class as requires immediate commitment to an institution for the insane.

It is a well-known fact among medical men that such Paranoics as here discussed are not only the most troublesome and difficult to manage, but the most dangerous of the insane with whom we have to deal. The physician when called upon

to examine into the mental state of such patients has no easy task. He is met by obstacles which do not obtain in other psychoses.

The patient appears to be in normal health, is intelligent, takes an interest in persons and things that should interest him; is an interesting conversationalist, and enjoys reading; worries over those things which should rightfully worry him; has a good appetite and sleeps well; association of ideas and reasoning powers are unaffected; has a comprehensive memory, and ability to transact business, with no emotional disturbance or loss of will.

It is rather a difficult task for the jurist or physician to say such a person is insane and requires institutional care. It is a fact, nevertheless, that this is the case, and that these conditions are all met with in the same person. This difficulty is still further added to when the

person realizes that he is under observation and examination, for he purposely denies and hides all morbid ideas and delusions, and in fact, avoids as far as possible all questions along this line.

Acute Paranoia is defined as a form of mental affection of rapid onset, generally occurring in those of a degenerate or Neuropathic heredity. This form of Paranoia is characterized by delusions and hallucinations very much the same as those which occur in true Paranoia. They, however, are less stable, and lack the systemization of those of true, or Chronic Paranoia.

While cases not resultant from the effects of drugs and alcohol are occasionally seen, and recovery reported, still they are so rare as to render it a matter of question among alienists as to whether they should be classified as Paranoia.

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## THE CURATIVE TREATMENT OF CONSTIPATION.\*

BY BOARDMAN REED, M.D., LOS ANGELES, CAL.

Neither purgatives nor douches of the colon are ever really curative in constipation, though useful for relief in emergencies and for continued use in incurable cases. A long dependence upon either increases the constipation, the daily use of colonic lavage more even than laxative drugs.

The causes of constipation are manifold; it may result secondarily from any one of many different diseases and surgical conditions, including an abuse of purgatives or colonic douches, repeated failure to answer the calls of nature, lack of exercise, a diet containing insufficient residue, and overeating. Displacements of the viscera predispose greatly to constipation and should be sought for and remedied in every case when found.

For treatment, removal of the cause is the indispensable first step. The

recent and lighter cases are generally easily cured by securing a sufficient amount of exercise, either active or passive, especially of the abdominal muscles, and ordering a diet containing much of the coarser articles which leave a large amount of residue, including the green vegetables, fresh or stewed fruits, breads containing the bran and other coarse parts of the grain, together with an abundance of water between meals.

In the more stubborn cases the author advises, along with a laxative diet and much active exercise when practicable, electricity and massage local and general, and insists particularly upon the great value of vibration applied as follows: vibratory massage of the muscles over the body generally every day for the first ten or fourteen days and later less frequently; stimu-

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\*Author's Abstract.

lation two or three times a week by vibration applied for one minute each over the spaces on either side of the first three lumbar vertebrae between the spinous processes; and the application of the intrarectal vibratode within the rectum at the same sitting for one to one and a half minutes, having the vibrating end of the vibratode at its shortest limit for this part of the treatment.

In the cases in which so much attention could not be had from the doctor, the author has often seen excellent results obtained from enemas of olive oil. For giving these the proper technic is to have the patient, or his attendant, introduce one to six ounces of warm oil the very last thing at night after getting into bed, so as to avoid any after disturbance, the oil to be retained if possible till morning. The patient should be lying on his back with the hips raised and the vessel containing the oil placed one and a half to two feet above the bed.

When there is a complicating colitis, as so often happens, the author has had added to the enema, with fortunate results in many cases, half to a teaspoon-

ful of bismuth subcarbonate well stirred so as to make an emulsion.

In the cases of so-called spastic constipation, in which a spasm of the colon or of the sphincter ani greatly aggravates the trouble, producing frequently, though usually not constantly, very slender stools, the treatment needs to be somewhat different. Less exciting measures are here appropriate. Over the abdomen light soothing massage suits better than vigorous kneading or percussion, though the vibratory massage and other vibratory stimulation have usually agreed well in the author's experience, provided the vibrating end of the vibratode were not too long. Strong acids and the sourer fruits are best omitted from the diet in these cases. Tests of the stomach contents should be made to make sure that there is no hyperchlorhydria which would have to be cured before any treatment of the constipation could possibly succeed. Such patients are usually neurasthenic and need special treatment for that disease. When the stools are always very thin and slender, it should not be forgotten that there may be an organic stricture.

## THE CLINICAL IMPORTANCE OF DIFFERENCES IN ARTERIAL PRESSURE BETWEEN THE TWO ARMS, ESPECIALLY IN RELATION TO CHEST LESIONS.\* PRELIMINARY REPORT.

BY DR. J. L. POMEROY, A.B., M.D., MONROVIA, CAL.

Before taking up the subject matter of this communication, I feel that it will, perhaps, be clearer if I state briefly the manner in which this investigation was commenced.

Some two years ago a patient came under my observation with symptoms of tracheal occlusion, having been admitted to a hospital with a presumptive diagnosis of laryngeal diphtheria. Subse-

quent physical examination of the patient showed this diagnosis to be wrong and brought out vague signs of an aneurism of the ascending portion of the aorta, giving some dullness in the right subclavicular region and intra-scapular region posteriorly, over which there was a faint bruit. There was a history of pains in the chest, spitting of blood and progressive increasing dyspnea. Having

\*Read before the Los Angeles County Medical Association, October 6, 1911.



been for some years studying blood pressure records as applied to clinical diagnosis, we made a careful record of the readings in this case in order to find some corroboration of our diagnosis. I will not now enter into a discussion of these findings, but will state that the pressure was decidedly higher on the side of the aneurism, which was a great surprise to us. Furthermore, at autopsy, we found conditions as we had expected: a large sacculated aneurism of the arch of the aorta, which had eroded the trachea just above the bifurcation, and a large cavity at the apex of the left lung with numerous small caseating tubercles in the immediate vicinity. The tissues surrounding the cavity at the apex were markedly fibrous so that the lung was badly torn in separating it from the chest wall. The clinical points in this brief résumé, which struck me at the time, were the presence of a tuberculous lesion co-existing with an aneurism, either one of which might easily have given all of the symptoms except the bronchial stenosis; and brought up to my mind the question as to whether or not adhesions at the apex of the lung do not disturb the blood pressure findings and thus controvert any bearing which those findings might have in rendering the diagnosis of aneurism more or less certain.

The question brought up by this case impressed me so much that during the past two years I have studied a number of cases of thoracic lesions, particularly pulmonary tuberculosis, suspected bronchial glands and mediastinum tumors in relation to these differences in blood pressure in the two arms. It will be seen that the subject is of practical interest as well as theoretical, and while tonight it is scarcely feasible to discuss in detail the technique of taking these readings, I shall include a description of that important question when these observations are published.

That differences in pressure between the two arms may frequently influence

the conclusion in a given case can be seen from the literature of this subject. Most recently in Wennekebach's (1) monograph on the pathological relation between respiration and the circulation, he described a patient in whom a diagnosis of aneurism was made largely on the basis of such a difference (lower pressure on the left side) together, of course, with certain other clinical symptoms. X-Ray examination, however, showed a marked lowering of the diaphragm with a consequent prolapse of the heart and enteroptosis. It will be seen from the analysis of my studies that the influence of the diaphragm and the position of the heart undoubtedly bear an important relation to the slight differences in pressure between the two sides. I shall refer to this later.

The studies include a total of 102 cases. These cases include four complete pneumothorax, five obscure cases of suspected new growths in the mediastinum, and 93 cases of pulmonary tuberculosis in various stages of the disease. These cases are divided in seven groups; and the results of the measurements are as follows: Blood pressure and the lesion were greater on the right side 19 times; blood pressure and the lesion were greater on the left side 11 times; blood pressure was greater on the side opposite the lesion 50 times; it was equal thirteen times. When the lesion was on the right side, the pressure was equal 5 times. When the lesion was on the left side the pressure was equal 8 times. When the lesion was on the right side the blood pressure was greatest on the left side 16 times. When the lesion was on the left side the blood pressure was greater on the right side 34 times. In a group of (4) pneumothorax cases the blood pressure was greatest on the side of the pneumothorax each time. In the five cases of suspected mediastinal tumors the blood pressure was consistent with the clinical findings four times and could not be properly interpreted once. (Case 44.)

It will naturally be understood that these statements are largely in the nature of a preliminary report, and much further observation is necessary before definite conclusions regarding these findings can be drawn. In a further analysis of the groups of cases the greatest difference in pressure observed was 34 mm. in a case with a large cavity existing at the left apex, the pressure on that side being 34 mm. lower than the right. The number of times differences over 10 mm. were observed was 52, the number of times the difference was under 10 mm. was 38. When one takes up a consideration of these differences, the natural question which might be asked is "What conditions exist normally?" There is some evidence to show that the pressure is higher in the right arm if the patient is right-handed; while, if left-handed, the pressure is higher on that side. Jellinek (2) examined 532 healthy soldiers in this respect and found such a condition present in many cases. Hecht and Langstein (3) in an examination of 63 cases found in right-handed persons that the tension was 5 to 20 mm. higher on the right side than on the opposite side; if left-handed, it was higher on that side.

Contrary to these findings are those of Goldwater (4) who could find no rule of difference between the two sides. Morris and Edmunds (5) found some differences, but could not draw any definite conclusions. No mention regarding these conditions was found in Janeway's or Oliver's books. In a personal communication Dr. Janeway stated to me that a difference of 10 mm. was frequently found in normal people, but that differences exceeding this degree could not be accounted for under normal conditions. It must be noted here that, on the basis of these observations, differences in favor of the left side, considering the frequency of right-handedness, are of far greater importance than differences in favor of the right side. It might also be said that where the tension is equal

on the two sides one might suspect some influence would either raise the pressure on the left side, or lower it on the right. It will be remembered that in these observations the differences between the two arms was 10 mm., or over 53 times, in the total of 102 cases. Furthermore, the pressure was equal 13 times. It cannot, therefore, be said that these observations can entirely be accounted for on the basis of normal variations.

The next important factor to be considered is the anatomical relation of the subclavian artery at the apex of the lung. Kinkings of the subclavian artery have been recognized clinically for a long time, as suggested by the following facts: In 1838, Stokes (6), an English clinician, laid great stress upon the presence of a subclavian systolic murmur in the early diagnosis of pulmonary tuberculosis at the apex. It was ascribed by him to a falling in of the subclavian region and a consolidation of the lung. He noted that hemoptysis or leeching would remove it; but it seems that little importance has been placed upon this sign in recent years. W. Walsh quotes Palmer, who found it present in 102 out of 497 healthy workmen, and considers it a pressure murmur, and so common in the healthy as to be of no value. Ruehle, who laid considerable stress upon it as an early diagnostic sign, believed that it was due to a kinking of the artery by pleural adhesions where it crossed the apex of the lung, and considered it a systolic subclavian murmur near the end of expiration only, in the outer part of the subclavian fossa, as evidence of pleural adhesions at the apex. Minor states that as a sign it is of little value, occurring too often in healthy people, and, therefore, is of little diagnostic value.

It will be remembered that the upper extremity of each pleural sac extends into the neck, reaching a point 1 inch to 1½ inches above the clavicle, and is covered by a layer of fascia, called Sibson's fascia, and the subclavian artery lies in

a groove on its antero-internal aspect. In front are the scalenus medius and anticus muscles. The second portion lies behind the scalenus anticus muscle. Behind the artery are the apex of the lung and the pleura. The third portion does not come in relation to the lung or pleura. The phrenic nerve crosses a portion of the first and second part of the subclavian. The first portion of the subclavian, especially the left, is overlapped posteriorly by the left lung and pleura. As the artery passes over the first rib it has the scalenus anticus anteriorly and the medius posterior. (Spateholz, p. 401.)

Whilst Stokes in 1838 noticed the presence of a subclavian murmur in cases of apical pulmonary tuberculosis, it remained for Rudolph Schmidt (7) in 1899 to demonstrate changes in the brachial plexus due to these same apical disturbances. By a long series of clinical observations he found conclusive evidence that pathological changes at the apex of the lung, partly intra-, partly extra-pulmonary (consolidation of the lung, thickening of the pleura) in character brought about kinking in the subclavian artery with consequent murmur production and injury to the brachial plexus, the nervus recurrens and surrounding tissue, and that this took place mainly in a mechanical way. A local toxic action he considered also a possibility. In many cases of early apical tuberculosis he found what he called "Unilateralen Plexusdruck schmerz." The symptoms consisted of tenderness on pressure over the brachial plexus, pain in the shoulder, changes in sensation in the course of the ulnar nerve (acroparaesthesia hyperaesthesia) over the supraclavicular and suprascapular regions, hyperhidrosis of the hand on the affected side, but did not notice any changes in the motor field. In this connection the muscle changes brought out by Pottenger (8), especially about the apex, are of greatest interest. Mention might be made here of the hyperaesthesia described by White and Van Norman (9), as well

as the atrophic changes in the skin described by Wheaton (10). I consider the connection between these observations while in a sense vague, are extremely suggestive of a common cause—nerve irritation. Schmidt quotes Luschka (11) in favor of a mechanical cause for his complex. "It is also quite possible that with relaxation of the scalenus muscle the apex of the lung is interposed between the scalenus internus, and medius, whereby the subclavian artery and the brachial plexus are separated." Schmidt summarizes the probable causes of Stokes phenomena and the brachial plexus symptoms as follows: In sinking of the regio subclavicularis, increased density of the lung, apical adhesions and possibly sympathetic nerve disturbance.

In all of our cases bruit in the subclavicular region was present at some time during the period of observation. It was, however, not at all constant, being present at one examination and not demonstrable at the next. Tenderness over the apex has been frequently noted, as well as hyperaesthesia, and in some cases marked disturbances in the course of the ulnar nerve, paresthesia and atrophy having been observed several times, these observations will be taken up in a separate communication. Sufficient has been said to indicate that adhesions at the apex of the lung and other pathological changes may produce changes in the relations normally existing about the subclavian artery.

The next consideration is the influence upon the circulation of changes in position of the heart and great blood vessels in the chest secondary to destructive lesions in the lung tissue. Dislocation of these structures may also follow pneumothorax, pleurisy with effusion, empyema, enlarged bronchial glands, new growths in the mediastinum, and changes in the height in the diaphragm not primarily due to intrathoracic conditions. In the latter class fall certain abdominal conditions, enteroptosis, subphrenic abscess,



gaseous dilatation of the atonic stomach, as well as other general conditions which tend to change the position of the diaphragm *asthenia universalis*, *splenomegaly*, etc. Of course, in the group of thoracic conditions we have always both the diaphragmatic changes as well as the changes in the position of the heart and great vessels. It can be justly said that a careful consideration of all these factors would be impossible in the short space of time allotted this paper. I will call attention to only a few more important points.

Firstly, in regard to the effect of the position of the diaphragm. As already noted, Wenckebach observed a lower pressure on the left side in a case of *enteroptosis* with a low position of the diaphragm and heart. Jurgensen (12) made some interesting observations in studying the so-called symptoms of a dyspeptic heart. The relations of the stomach to the heart, and especially the effect of inflation of the stomach on the circulation, have long been recognized. Clinical observation has shown the injurious effect on the heart of accumulation of gas in the stomach and intestines. By an exceedingly ingenious method of observation, Jurgensen has succeeded in demonstrating the effect of such conditions by studying the process under X-Ray. He showed that by increasing the intra-abdominal pressure by artificially inflating the stomach so as to produce a high position of the diaphragm, a rise in blood pressure occurred at first, which was followed later by a failure of the heart and a fall in blood pressure, terminating in death. It was noted that the blood pressure varied on the two sides, being more increased on the left side than on the right. The examination of the heart under these conditions showed a change of position, the apex being pushed upward so that the left border assumed nearly a right angle, with the axis of the great vessels and the dullness of the heart was increased to the left. He ex-

plains the difference in blood pressure between the right and left sides as due to a modification of the distribution of the blood on account of the stretching and bending of the great vessels, by the one-sided pressure on the diaphragm. The disturbances in circulation in cases of flatulence he concluded was produced by this mechanism, and explains the fatal cases following over-indulgence in drinking mineral waters thus setting free a large amount of  $\text{CO}_2$  in the stomach, raising the arterial pressure suddenly and elevating the diaphragm, with consequent cardiac failure.

In the four cases of pneumothorax the lesion occurred on the left twice and on the right twice. The blood pressure was higher on the side of the pneumothorax in each instance. In two cases the intrapleural tension was taken. The maximum on expiration was about 20 mm., on inspiration it was about 10 mm. in one case; in the other it was plus 10 and plus 8 mm. Hg. What the effect on the intra-abdominal tension is in such cases one cannot tell. I do not know of any observations.

The exact explanation of the findings in these cases is at present not at all clear to me. It would be of interest to compare the blood pressure readings in cases before and after performing artificial pneumothorax.

The results of Jurgensen who found a higher pressure on the left side when the diaphragm was raised by inflation of the stomach do not altogether agree with our clinical findings in marked destruction of the left lung, heightened diaphragm and displacement of the heart. An increase over the opposite side occurs quite frequently in these cases, but there are too many exceptions to this which at present make it impossible to draw any definite conclusions. At the present time it seems that with a lesion located at the left apex the pressure is apt to be lower on that side, but where extensive destruction of the lung has occurred, with

the consequent changes the pressure is apt to be higher on the left side. This same general rule seems to hold good on the right side. (Lesion at left apex—low pressure on that side. Pneumothorax on that side pressure higher on that side.) The influence on the intra-abdominal pressure may be a factor which properly interpreted will explain some of our otherwise obscure findings.

The question of what influence enlargement of the mediastinal lymph nodes play in the problem under consideration must also be considered. Enlargement of the bronchial glands takes place to a certain extent far more often than we are able to recognize clinically. The recent article of Honeij (13) is of special interest in this connection. In an examination by X-Ray of 620 patients at the Boston City Hospital, he demonstrated the common failure to recognize accurately the presence of mediastinal or bronchial glands. The majority of the patients were referred to the X-Ray department to ascertain or verify the presence of tuberculosis of the lungs. Of these 620 patients, 147 showed the presence of glands in the mediastinum, or at the root of the lungs. In only two had the question of enlarged post tracheal or bronchial glands been suspected from the physical examination. But in many of the cases there were signs of early tuberculosis at the right apex. His conclusion was that the enlarged glands may cause these signs, furthermore that the enlargement occurs more frequently on the right side. These enlargements occur both in the tuberculous as well as in non-tuberculous patients and probably occur as frequently in adults as in children. In 100 cases of questionable tuberculosis, 32 proved to be non-tuberculous, and in these cases the glands were shown to be enlarged. In five cases of questionable aneurism of the aorta, there proved to be no aneurism present, but enlarged glands. These findings are of great clinical importance as they show that enlarged

mediastinal lymph nodes may simulate the clinical signs of a right apical lesion as well as aneurisms of the aorta. It is all the more certain that enlargements of the lymph nodes in the mediastinum with consequent inflammatory changes, takes place during the progress of frank tuberculosis of the lungs. While we cannot go into the relations of these nodes to the blood vessels, that they are a factor must be conceded. Especially is this supported by the evidence that they may be confused with aneurism.

In our series two cases are of special interest. One gave a history of asthmatic attacks for years, there were dilated veins in the skin over the left subclavicular region, weak breathing over the left apex and dullness posteriorly at the level of the fifth dorsal vertebra, extending slightly over the left apex. X-Ray examination showed distinct glandular enlargement and possible thickening at the left apex. The blood pressure was 6 mm. lower on the left side, although this patient was left-handed.

The second case presented almost identical symptoms, though there were quite evident symptoms of tuberculosis of the left lung. The blood pressure showed a difference of 16 mm. hg. in favor of the right side. In the first case on account of the pressure symptoms, the physical signs, and the enlarged superficial veins over the left chest, the diagnosis of aneurism had been considered a number of times. The difference in blood pressure would on that basis give erroneous support to the diagnosis.

Outside of the thoracic conditions there is one other important factor to be considered which may influence the blood pressure—that is the presence of cervical rib. This was found in two cases. In one there were no symptoms. In the other there were slight symptoms of irritation of the ulnar nerve, and the blood pressure was fifteen millimeters lower on that side (Case 39). While this is a

somewhat rare condition. Schleuter and Henke (14) recently report a case in which the symptoms were cardiac in nature, somewhat similar to an aortic stenosis though milder in nature. In this instance the authors report a difference of fifteen mm. due to pressure on the subclavian artery by the supernumerary rib. Goodhart (15), in an admirable résumé of the literature of this subject does not mention that any measurements were taken but gives quite a list of circulatory disturbances—Aneurism, thrombosis, endarteritis obliterans, gangrene of the fingers, etc.

To summarize the results of these as yet somewhat unfinished observations, it may be stated that in a study of over a hundred cases a difference in blood pressure between the two sides varying from one to thirty-four millimeters of mercury may be found. That difference exists under normal conditions in favor of the greatest developed arm, which is most usually the right, therefore differences in favor of the left side under such conditions should have a greater weight in the clinical data. Furthermore, it has been shown that these differences in pressure may be attributed to hitherto little-noticed factors, contractions about the apex of the lung changing the anatomical relations of the subclavian artery, changes in the mediastinal tissues secondary to tuberculosis (enlarged bronchial glands, etc.), other new growths in the mediastinum, changes in the position of the heart and great vessels due to extensive destruction of lung tissue, and finally to changes in the height of the diaphragm following pneumothorax, or certain intra-abdominal conditions (enteroptosis, dilated stomach). The presence of cervical rib may also be a disturbing factor.

Most important from a diagnostic standpoint is the fact that a difference in blood pressure between the two sides cannot be of any help in differentiating aneurism of the aorta from other intra-

thoracic conditions, especially in the case of pulmonary tuberculosis or enlarged bronchial glands. It is hoped that further work will clear up some of the more obscure factors in the production of these anomalous conditions. This the author hopes to carry out.

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#### DISCUSSION.

Dr. Pottenger, Monrovia: These observations of Dr. Pomeroy are certainly very interesting, and they are not only interesting but they are practical. My observation has been that many things stated in the textbooks from year to year will bear a good deal of scrutiny. Many stated in the textbooks from year to year nosis of the chest are either wrong or I cannot find them. For that reason I think we are justified in questioning all of these things and that is the attitude of mind with which we must approach this subject. And when we find that things are not as they are stated in the textbooks it is time for us to try to observe whether there is not some mistake in the textbooks themselves. I have been unable to find many things described in the textbooks and I believe the whole



subject of physical diagnosis of the chest must be revised and we must take into consideration the changes in the muscle, the changes in the heart and all of these things. The difference in blood pressure is mentioned in practically every paper as a matter of importance in the diagnosis of aneurism, but in this country where there is so much tuberculosis, it is of very much less value. A blowing murmur and an accentuation of the second aortic you will find in many cases of tuberculosis where the position of the heart is changed, consequently it takes away its value as a diagnostic sign in cardio-vascular disease. You will find cardio-pulmonary bruits are purely cardiac and yet do not indicate any serious trouble. It is very interesting that in these advanced cases where you have a left-sided case with the heart in the left apex of the axilla, that there is nearly always this marked difference in the pressure. Where you have a complete pneumothorax, the lung is pushed to the top, pressure of the gas in the pleura may not be quite so great, and if the heart pushes up and the lung collapses, you probably will not get quite as much pressure on that side as on the opposite side, where the lung is not affected and the heart is working under tremendous pressure. I can see no other reason for the lowered pressure on the affected side in these cases. The relation of the subclavian and the brachial plexus in these cases, as described by Dr. Pomeroy, is also very interesting. I know of some of you who think that some of the signs I have found are not very practical, but after working with these signs for over two years I am satisfied they are among the best signs I know of. You can practically pick out by sight and touch and say whether there is an old or a new lesion present and whether or not it is apical. The statement that a systolic subclavian murmur is of little value because so often found in healthy persons, I cannot agree

with. This sign is very common on the side where we find the degenerated muscle and sunkun apex, so I think it would require much observation before one could feel justified in declaring it of no value. Besides, we know tuberculosis is present in many people where it is not suspected, and we are apt to say it is not present where it may be, and the reverse. The observations of Rudolph Schmidt are very interesting, *i. e.*, the presence of pain over the brachial plexus. We have found the muscles of the entire arm degenerated, all the muscles being involved in which the nerves take their origin from the cervical portion of the cord. Pain, sensory disturbances in the skin and the muscle changes I have suggested, all point to the changes in the cord itself, and they will bear considerable observation. The changes in the pressure due to differences in the position of the diaphragm are very interesting. I believe one of the causes of early hypertension in tuberculosis is the fact that the diaphragm is interfered with. As soon as tuberculosis develops and adhesions occur, the diaphragm on that side does not move as freely as on the other side. When the motion of the diaphragm is interfered with you have taken away one of the chief aids to circulation, the blood is consequently stored up in the pleuronic region and you have consequent hypertension, and you can see how this could produce quite a change. I am sure, too, that this change in the diaphragm is one of the causes of the collapse of the apex, because it results in changes on that side. I think we all should note more carefully the changes in blood pressure and tension in these cases.

Dr. Donald J. Frick: It would be a very interesting thing also to get the diastolic pressure. I have been using the auscultatory method of getting the blood pressure lately as we can in that way get both the systolic and diastolic

pressure. Hirschfelder, in his monograph, "Diseases of the Heart and Aorta," describes readings made by this method of getting diastolic pressure which were checked with Erlanger's instrument. The difference being only about 5 mm., which is really close enough for all practical purposes. Could we know the diastolic pressure in these cases it would be more interesting. I think that most of us have noted the difference in blood pressure between the arms in cases of aneurism, but further than that we have not done much with the difference in blood pressure between the two arms.

Dr. Pomeroy:

I think the importance of these studies is not so much their actual value, for somebody may prove that I am wrong, but the collateral information may be worth while, even though it may be shown that I am mistaken. The question of the observation of the muscles of the chest, especially in relation to palpitation, has to me been a very interesting and important part of my medical education. I must say that the most of my education was based on what we got in the laboratory and what we could hear with our ears, and the correlation of that data; as we study more and more biological data we are carried away by conclusions based on biological data, but it will be many years before biological data can be absolutely correlated with clinical data, and anything that will train us to observe conditions from a clinical standpoint is of the utmost importance. I must confess I was in a very skeptical mood when I went to Dr. Pottenger's laboratory and I have not only changed my mind, but am very enthusiastic. If one will study these chest signs thoroughly he cannot but be convinced of their value, especially when we realize how little we get from tuberculin reaction. This must be very carefully interpreted to be of any value. In regard to the diastolic pressure (my observations are based on the

systolic pressure) I find that the diastolic pressure is extremely difficult to get, especially in pulmonary tuberculosis, where there is a low diastolic pressure and one that varies very easily. I regret very much that I could not tell you in detail the method of making these observations, but it is a thing that will require considerable time to describe fully.

#### EVOLUTION DISCONTINUED.

For many thousand years an animal may evolve in complexity and structure, till it is in harmony with its environment. It may then stand still and develop no more for indefinite periods; or the advent of a new environment may induce further changes apparently in the reverse direction, causing the animal to take on a more primitive type of structure. Instances of this kind were pointed out by Sir Ray Lankester more than thirty years ago. Such a case is that of the barnacle, of which the larval stage, representing its past development, is very much more complex than the final stage. The juvenile barnacle called the nauplius, is an active free swimming crustacean, which after a time fixes its head to a piece of wood, loses its organs of sight and touch, and its power of locomotion, and degenerates into an ordinary ship's barnacle. So too, the ascidians, or sea-squirts, which appear very elementary plant-like creatures, growing on rocks on the sea-bottom, are descendants of vertebrate animals, and it has been discovered that their young take the form of tadpoles, closely resembling the tadpole of a frog. Mites are degenerate spiders; the parasitic worms have lost the organs of their ancestors, and live a life of effortless luxury in the bodies of their hosts.

Wiedersheim in his "Der Bau des Menschen," reckons in human beings fifteen organs that are progressing, seventeen that are decaying though still partially useful, and 107 that are rudimentary and altogether useless.

# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

This journal endeavors to mirror the progress of the profession of California and Arizona.

Established in 1886 by

WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

Associate Editors:

DR. GEORGE H. KRESS, DR. JOHN W. FLINN, DR. ELBERT WING,  
DR. H. BERT ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW,  
DR. F. M. POTTENGER and DR. WILLIAM A. EDWARDS.

Address all communications and manuscripts to

EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

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## EDITORIAL

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**DR. AUGUSTUS SCHAFER.**

The following letter and clipping were received from a physician of Prescott, Arizona. We could not say very much in regard to Dr. Schafer, as we know very little about him. Some physicians think that he may have something that will prove to be of importance, while others are very skeptical. Such headlines as this in a daily paper quite a while before the arrival of the doctor makes the profession suspicious. Whether the doctor has any discovery of value or not is something which time will settle; meanwhile, during this experimental stage we would suggest that he use still greater efforts to keep out of the newspapers.

Prescott, Arizona.

October 29th, 1911.

Dr. Walter Lindley,  
Editor Southern California Practitioner,  
Los Angeles, Cal.

Dear Doctor Lindley: The enclosed clipping, taken from this morning's Journal-Miner, explains the purpose of this letter.

We know nothing about this Dr. Augustus F. Schafer of Bakersfield, California, except through newspaper notoriety and his advance agent in these parts, a Mr. Sawyer.

Is he a member of your State Association, and are his methods ethical and worthy of our attention and courtesy?

There are so many real Quacks and "Near Quacks" abroad these days that even the medical profession is often imposed upon, hence this letter to you seeking the truth concerning the above-mentioned physician.



This advance advertising does not look particularly good to us, yet should the man have anything worthy of our investigation and study, and his meth-

ods are ethical, we should be pleased to extend to him every courtesy; should the contrary prove true we should act accordingly.

# FAMOUS PHYSICIAN TO VISIT PRESCOTT

## Doctor Schafer Will Treat Limited Number of Tuberculosis and Fever Patients Free of Charge

Medical circles of this city, as well as those afflicted with tuberculosis or kindred ailments, will be deeply interested to learn that Dr. Augustus F. Schafer, at present in San Francisco, contemplates visiting this city early next month. This important information was learned yesterday from W. T. Sawyer, of the Coronado Mining Company, a close and intimate friend of this famed physician. Dr. Schafer writes that he will treat a limited number of incipient and moderately advanced cases of tuberculosis without compensation, and instruct local physicians in the proper use of his remedies in other diseases, such as pneumonia, typhoid, scarlet and other fevers.

In the successful treatment of pneumonia, while residing at Bakersfield, Cal., Dr. Schafer has sprung into world-wide fame as a successful physician. Many in this city have spoken of his ability in conquering the diseases and he was called to San Francisco a short time ago to confer with physicians. He has a record, while at Bakersfield, of losing only four cases out of 400 patients treated for pneumonia. In the

last issue of Pearson's Magazine appears the following editorial announcement that precedes a lengthy article on this medical authority:

"They doubted when they heard the results of Dr. Schafer's autitoxin. They wanted to be shown. They have been shown. They no longer doubt. Some scientists who have had an opportunity to observe are now most ardent advocates of Dr. Schafer's treatment. Some who have not observed still doubt. Dr. Schafer has been invited to bring his pneumonia treatment to St. Petersburg, Russia, hospitals."

Mr. Sawyer also states that Dr. Schafer will treat without expense any number of patients that may be presented, preferring a sanatorium or like institution. He was induced to come to Prescott by Mr. Sawyer from the long acquaintance of the two, while both were residents of Chicago, studying for the medical profession. The generous offer extended by this physician to alleviate suffering mankind is to be commended everywhere he has visited, and no doubt will be accepted in the same spirit here.—Prescott Daily Journal-Miner.

### THE TYPHOID FLY.\*

We all know of Dr. Howard, the government entomologist. The Doctor is a frequent and welcome visitor to Southern California, and this excellent work comes to us just as its author is making one of his scientific trips to Pasadena and Los Angeles.

The following quotations from this work should have appeared in connection with the article on "The Hygienic Advantages of the Automobile Over the Horse," that was published in the *Southern California Practitioner* for October, 1911:

"It is safe to say that the **typhoid fly** will breed in almost any fermenting organic matter, and it is also probably safe to say that if given its preference it will lay its eggs on a pile of horse manure. The writer once estimated that under ordinary city and town conditions more than ninety per cent. of the flies present in houses have come from horse stables of their vicinity, and he is still inclined to think that this estimate is probably correct. But the eggs will also be laid upon the excreta of almost any animal. Cow manure, drying rapidly in a dry season and forming a hardened caked surface, is not a favorable nidus, yet this fly is reared from cow manure at times. Many other species of flies prefer cow manure, and a long list of species reared from this substance has been published by the writer.

"The typhoid fly is, possibly next to horse manure, attracted to human excreta, and not only visits it wherever possible for food, but lays its eggs upon it and lives during its larval life within it. It will not only do this in the latrines of army camps, in the open box privies of rural districts and small vil-

lages, but also upon chance droppings in the field or in the back alleyways of cities, as has been repeatedly shown experimentally in Washington.

"On August 9th in Washington a quarter of a pound of rather well-infested horse manure was taken from a manure pile, and in it were counted 160 larvae and 146 puparia. This would make about 1,200 house flies to the pound of manure. This, however, cannot be taken as an average, since no larvae are found in perhaps the greater part of ordinary horse manure piles. Neither, however, does it show the limit of what can be found, since on the same date about 200 puparia were found in less than one cubic inch of manure taken from a spot two inches below the surface of the pile where the larvae had congregated in very great numbers. This, as stated, was in August, and the height of the fly season had not yet been reached. Major N. Faichnie, of the Royal Medical Corps, in the *Journal of the Royal Medical Corps* for November, 1909, gives the result of certain experiments with flies, indicating that in India he reared 4,000 flies from one-sixth of a cubic foot of trench ground. He also states that he reared 500 flies from one dropping of human excreta.

"Further counts have been made by Dr. W. B. Herms, of the University of California (1910). Doctor Herms took four samples from different parts of an average horse manure pile in Berkeley, Cal., (not near a livery stable). The four samples weighed fifteen pounds in all and contained by actual count 10,282 larvae, nearly all of which were nearly or quite grown. The weight of the entire manure pile was estimated at 1,000 pounds, and, at the rate counted, estimating that possibly one-third of the pile was uninfested, the pile contained 455,000 and more larvae. Is it any wonder that flies swarm near the average stable?"

\*The House Fly, disease carrier, an account of its dangerous activities and of the means of destroying it. By L. O. Howard, Ph.D. Price, postage paid, \$1.75. New York: Frederick A. Stokes Company, publishers.

The chapter on "The Carriage of Disease" is intensely interesting and very instructive. Dr. Howard also has one chapter on "The Natural Enemies of the Typhoid Fly," and speaks of the spider, the garden toad, lizards and some varieties of large flies. The practical section of the work is devoted to remedies and preventive measures. In this chapter the author says:

"To permit them to breed undisturbed and in countless numbers, and to devote all our energy to the problem of keeping them out of our dwellings, or to destroy them after they have once entered in spite of all obstacles, seems the wrong way to go about it."

In speaking of methods of killing the maggots in horse manure, he says that chloride of lime is too expensive and that the fumes are injurious to the eyes of the livestock, but that eight quarts of fresh horse manure sprayed with one pint of kerosene, which was afterwards washed down with one quart of water, was thoroughly rid of living maggots, but he believes the best method is by the use of a solution of iron sulphate, 2 lbs. in a gallon of water for each horse per day, or by the use of  $2\frac{1}{2}$  lbs. of dry sulphate of iron per horse per day. This does not destroy the usefulness of the manure as a fertilizer.

There is much said here in regard to the value of fly traps. These traps are becoming a potent factor in the fight against the fly.

#### DIORADIN.

This preparation which is also spoken of as "Radio-Active Iodine and Menthol" is being placed before the public

as a new remedy for Tuberculosis.

The composition of the compound is given as follows:

Peptonized Iodine ....0.75 gr  
Menthol .....0.06 gr.  
Radium barium chloride.  
One-tenth of a drop of ether solution.

The British Medical Journal of July 8, 1911, contains an article by Leonard Robinson of Paris, in which claim is made that Dr. Bernheim and others have used the remedy somewhat extensively, and report beneficial results.

Robinson relates the treatment of three cases as recorded by Bernheim. Improvement was noticed in all, but to a careful reader they are only those cases which show an occasional improvement under any new remedy.

There is a claim that first, the drugs destroy the bacillus of Koch. That "in all cases where the sputum has been systematically examined microscopically before and after the injections it was found that the bacillus took the stains less well, that it was in a degenerating condition, and that it became rarefied and finally disappeared."

Second, that radio-active iodine and menthol have a powerful action on streptococci.

Third, that radio-active iodine and menthol improved the general condition of the patients.

Fourth, that this product seems to possess a dynamogenic action; that is, they were imbued with a feeling of strength and renewed life.

Fifth, that this product caused an increase in weight.

Sixth, that the beneficial effect of the



product persisted in spite of intercurrent affections.

Seventh, that radio-active iodine and menthol cured tuberculous glands.

Eighth, that the treatment had an action on tuberculous laryngitis.

Ninth, that it diminished the quantity of sputum and suppressed the cough.

Tenth, that the treatment made the gastric functions more regular.

These are very strong claims, but it is to be remembered that they are claims which have been made for numerous drugs in times past. We can readily understand how the novelty of the drug and the mystery surrounding the action of radium could lend a sort of enchantment to the treatment. We can still farther see how a medical man thoroughly imbued with the idea that it is going to give relief can give hopefulness and encouragement to his patients, and this hopefulness and encouragement would act beneficially for a time with tubercular cases.

It is an expensive remedy, each dose costing sixty-two cents. It is claimed by the present manufacturers that Dioradin is under consideration by the Council of Pharmacy and Chemistry of the A. M. A. at the present time. It comes put up in ampulles, each containing one hypodermic dose and costing \$7.40 per dozen ampulles.

It is suggested that the remedy be used every day for the first ten days, then up to the fortieth injection every second day, then there should be an intermission of at least a fortnight, after which treatment may be continued. Fever seems to be no contra-indication for its use, but on the contrary it is

said to rapidly reduce the temperature.

The writer would dislike to be placed upon record as having any inclination to "boom" the remedy, and must confess that after seeing one remedy after another tried, only to be rejected after a reasonable amount of use, cannot help but be skeptical as to the usefulness of this drug.

G. L. C.

### THE HISTORY OF MEDICINE.

Dr. W. Jarvis Barlow, as president of the Los Angeles County Medical Association, introduced a very valuable feature into the proceedings of the society for 1911.

His aim was to cover The History of Medicine in 12 or 14 months by monthly papers. These have been given regularly and have aroused great interest.

The pages of the SOUTHERN CALIFORNIA PRACTITIONER during the year have reproduced these papers and they are all worthy of careful reading. Several of the papers planned for will not have appeared by the close of Dr. Barlow's administration, but we trust his successor will see that the work is continued.

The following resumé shows the work that has been done:

February, 1911—Pre-Hippocratic Medicine. By Dr. C. L. Allan.

March, 1911—Hippocrates, and Hippocratic Medicine. By Dr. Bernard Smith.

April, 1911—From Hippocrates to Galen in the History of Medicine. By Dr. R. L. Cunningham.

May, 1911—Claudius Galenus and His Teachings. By Dr. C. H. Whitman.

October, 1911—Medicine in the Middle Ages. From Galen to the Discovery of North America. By Dr. F. C. Ainley.

November, 1911—Medicine in the Sixteenth Century, and the Contemporaries of Shakespeare. Beginning of the Modern Era. By Dr. Elbert Wing.

## EDITORIAL NOTES

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Dr. Geo. D. Keeler has located in Elsinore.

Dr. P. V. K. Johnson now has offices in the Security Building, Los Angeles.

Dr. J. A. Ketcherside, of Yuma, spent a few days in Los Angeles last month.

Dr. Walter D. Boggs has his office and residence at 15 Stevenson avenue, Pasadena.

Dr. F. W. Kidder, of Los Angeles, is spending a few weeks in the hospitals of the East.

San Diego held a tag day on November 11th for the benefit of the Anti-Tuberculosis Camp.

Dr. and Mrs. A. R. Hickman, of Douglas, Arizona, were in Los Angeles for a few days in October.

Dr. Fred Baker, of San Diego, from last reports was still in Brazil having a most interesting time.

Dr. Henry F. Hoyt, recently from Minnesota, has located at 332 W. Second street, Long Beach.

Dr. Hoell Tyler, of Redlands, has returned after spending the summer in the hospitals of the East.

Dr. Carl C. Warden, of Los Angeles, is spending a few months in the East, devoting himself to research work.

Dr. E. P. Wallace, of Pomona, who has been spending some months in the hospitals in Vienna, is again at home.

Dr. L. P. Kaull, of Los Angeles, spent the month of October hunting in the Mogollon Mountains near Jerome, Arizona.

Dr. Elbert Wing, of Los Angeles, was last reported motoring through New England, after having returned from Europe.

Dr. Elmer Leroy Riggs, of Los Angeles, was married on Wednesday, October 13th, in Chicago, to Miss Grace Wentworth.

Dr. P. M. Savage, superintendent of the San Bernardino County Hospital, has arranged a lecture course for the Training School for Nurses.

"Five Illustrative Cases of Primary Melanosarcoma of the Choroid," is the title of a reprint by Dr. J. H. Woodward, B.S., M.D., of New York.

Dr. Geo. E. Tucker, Riverside County Health Officer, has returned home after specializing for two months at Rush Medical College on the eye and ear.

Dr. Francis E. Shine, of Bisbee, spent a few days in El Paso last month attending the Railway Surgeons' Association and read a paper at their meeting.

C. V. Mosby Medical Book and Publishing Co., Metropolitan Building, St. Louis, have just issued an interesting descriptive catalogue of their latest publications.

Dr. Dudley Fulton, of Los Angeles, is spending a few months in New York and Philadelphia devoting himself to special investigations along the line of internal medicine.

Orange County, California, will ship this year five thousand tons of walnuts which will pay the growers \$1,000,000. This very healthful food is in greater and greater demand.

Dr. Van Zwahlenburg, of Riverside, attended the Surgeon's Congress in Philadelphia beginning November 7th. He is now spending some time at Johns Hopkins, Baltimore.

Dr. Anna M. Longshore Potts is now a practicing physician in San Diego. Dr. Potts was the first graduate of the Woman's Medical College of Philadel-

phia, of which her brother was the founder.

Dr. Henry Payson Merryman died at his residence in Santa Barbara on October 18th. He was born in Hinsdale, Massachusetts, August 25th, 1838, and was for many years professor in Rush Medical College.

Dr. P. C. Remondino, of San Diego, is now in London getting additional data for his forthcoming history of medicine. Before sailing he devoted some time to the libraries of New York, Boston, Washington and Philadelphia.

The Southern California Homeopathic Society at its recent session left Los Angeles for one day and spent the day very profitably at the State Hospital for the Insane at Patton. We commend this innovation to other medical societies.

Dr. E. S. Goodhue, government physician of Hawaii, and brother of Dr. W. J. Goodhue, physician in charge of the Leper Colony at Malokai, has been paying a visit to his brother, J. H. Goodhue, 2983 West Eighth street, Los Angeles.

Dr. Cecil Reynolds, commenting on the editorial in October Southern California Practitioner, entitled "The Prolongation of Life," said: "The prescription is a wise one and can be reduced to this: **A clean colon and a calm mind.**"

"Unusual Foreign Body in Right Bronchus Removed by Lower Bronchoscopy." "Osteo-Myelitis of the Temporal Bone," "Perforation of the Septum Naris," are the titles of three reprints by Charles W. Richardson, M.D., Washington, D. C.

Every physician would be interested in reading the California Poison Law relating to arrest, hearing and commitment of inebriates and drug habitues to a State hospital for the insane. A copy of this law will be sent to any physi-

cian on request, by Mr. Louis Zeh, Secretary State Board of Pharmacy, Butler Building, San Francisco.

Dr. Kate Wilde of Los Angeles says: "At the 'Door of Hope' for the past year I have aimed to shorten the labors of primipara, during the stage of cervical dilatation. The return flow colon tube inserted in the rectum prior, and during labor, at short intervals, if necessary, passes from quarts to gallons of warm normal salt solution through the rectum and returns same. The cervix relaxes and dilates gently, easily and rapidly under the above treatment."

At the October meeting of the Arizona Medical Examiners the graduates of the following named colleges took the examination in October and all were successful: University and Bellevue Hospital Med. Col., 1908, 88.2%; Rush Medical College, 1901, 83.3%; Baltimore Medical College, 1909, 75%; University of Tennessee, 1911, 79.4%; P. & S., Little Rock, 1911, 75%; Rush Medical College, 1908, 85.6%; Hahnemann Medical College, Chicago, 1892, 75%.

While in San Francisco recently we met Dr. Rupert Blue, of the United States Public Health and Marine Hospital Service. Dr. Blue stated that to his great regret he was leaving California and would sail for Honolulu on November 4th, where he is to become Chief Quarantine Officer of the Hawaiian Islands. Dr. Blue has certainly done a most valuable work in California, and carries with him the highest esteem of the Medical Profession of the Pacific Coast.

The eighth annual report of the Barlow Sanatorium has just been received. This is an ideal institution. It has been continually full during the year, its capacity being 35 patients. All patients must pay \$5 per week, but the cost to the sanatorium is \$10.50 per week, the deficiency being paid from the fund de-



rived from subscribers who pay \$10 per year, patrons who pay \$50 per year, and life members who pay \$100 per year towards endowment. It now has an endowment of \$55,900.

The following have recently been elected members of the Los Angeles County Medical Association: Drs. E. M. Bixby, C. A. Shepard, Charles C. Manger, Albert H. Winter, Wm. T. Rothwell, Duncan McArthur, John P. Nuttall, Marion S. Reynolds, Karl F. Ross, C. F. Metcalf, Byron Palmer, E. L. B. Godfrey, Frederick S. Ray, J. Thos. Reynolds, J. S. Baer, F. C. Ainley, George E. Malsbary, W. L. Dickerson. The following have been admitted by transfer: Drs. Z. Levin, C. A. Shepard, E. M. Bixby.

Through the efforts of the Board of Health of San Diego a city ordinance has been passed creating a Board of Inspectors of Meat and Dairies, to be appointed by the Board of Health. Dr. Ion W. Parks, M.D.V., has been appointed chief inspector. All slaughter houses and dairies supplying this city are subject to inspection, and all carcasses brought in by farmers must have the viscera attached for inspection. A very excellent certified dairy has been opened in Mission Valley, San Diego County.

A Psychopathic Building will now be erected in connection with the County Hospital. It will cost approximately \$100,000. The plans provide for a building 120 ft. wide and 224 ft. long. The front elevation will be three stories. The object of the institution, the superintendent, Dr. C. H. Whitman, states, is to make possible the successful treatment of patients under observation, and not to subject mild temporary cases of mental aberration to the humiliation of arrest and commitment to the State Hospital.

The Southern California Practitioner has, from time to time, called attention

to the complacent, indifferent attitude of the medical profession towards Christian Science. It has recently been demonstrated in Los Angeles that through this Christian Science influence, a physician cannot be a member of the City Board of Education, while the Christian Scientist received the largest vote that was given any candidate. This was at the primaries. The election comes early in December, and we do not expect much change in the results.

Dr. C. B. Bates, who was born in England in 1842, died at his home in Nahant, Massachusetts, October 13th, almost 70 years old. He settled as a practicing physician in Santa Barbara in 1869. He was a man of fine intellect and thorough education and with the highest ideals, and at the same time he had great business ability. About nine years ago he removed to the East. A wife and four children survive him. His oldest boy just graduated from Harvard, and his second son is attending the Massachusetts Institute of Technology, while the two younger children are with the mother.

At the twenty-first annual meeting of the Southern California Homeopathic Medical Society held in Los Angeles October 11th and 12th, 1911, ringing resolutions were adopted stating that the society stood for the legitimate practice of medicine and surgery, and were in favor of all measures and legislation in the interest of public health and the prevention of disease, and that it was not to the interest of Homeopathy to lend support to the so-called National League of Medical Freedom. They further stated that the Southern California Homeopathic Medical Society was not in sympathy with its object or methods. The resolutions were signed by Dr. F. S. Barnard, president, and Dr. T. C. Low, secretary.

Sir Wilfred T. Grenfell, the Labrador Missionary physicians, will visit Los An-

geles, accompanied by Lady Grenfell, next March. His wife was formerly Miss Anna MacClanahan, of Lake Forest, Chicago. Sir Wilfred is a graduate of Oxford University. He entered The Royal Navy in 1889, and previous to that was surgeon at the London Hospital. He fitted out the first hospital ship for the North Sea Fisheries, and cruised with the fishermen from the Bay of Biscay to Iceland. He established homes for the fishermen in Labrador and arranged mission vessels for them at sea. He first reached Labrador in 1902, when he was 37 years old; has built four hospitals, a series of co-operative stores, an orphanage and started numerous industrial schemes. His life on these bleak shores was full of work and adventure, and as a result of his experiences with the hardy men, Dr. Grenfell has published many articles and monographs of deep-sea fisheries, fishermen and the work among them. Among his books are "The Harvest of the Sea," "Off the Rocks," "A Man's Faith," and "Adrift on a Pack of Ice."

Dr. Ephraim M. Epstein, M.D., A.M., of Chicago, one of the editors of the *American Journal of Clinical Medicine*, is 83 years old and enjoys life surrounded by a library of four thousand volumes that he has personally collected. He writes expressing his appreciation of the editorial on "The

Prolongation of Life," that appeared in the SOUTHERN CALIFORNIA PRACTITIONER for October. Dr. Epstein also sends us a delightful autobiographical reprint, entitled "Why Do I Live So Long?" One of the first queries he makes reads, "Is literary predilection and pursuit conducive to longevity? May it not be so by preventing senile ennui?" Dr. Epstein graduated from the College of Physicians and Surgeons, New York, Class of 1859. Practiced medicine first in European Turkey; was next surgeon in the Imperial Navy of Austria; was in the battle of Lyssa in the Adriatic Sea, July 20, 1866, under Admiral William Zegethoff. He wrote an ode in English in honor of the Admiral, for which he received a prize of three hundred dollars from Emperor Franz Joseph. At his request he was honorably discharged and returned to America. After practicing for a while, he accepted a professorship in the Heidelberg College, Tiffin, Ohio. He next organized and was president of the South Dakota State University; next for several years professor in Bethany College, West Virginia, and finally, in 1899, settled down in Chicago among his 4000 books, as one of the editors of *The American Journal of Clinical Medicine*. For a man who was born a Russian Jew under Nicholas I., this is a history that certainly surpasses any fiction.

## THE LAS VEGAS MEETING OF THE NEW MEXICO MEDICAL SOCIETY.

BY GEO. A. BRIDGE, M.D., BISBEE, ARIZONA.

About the first of September I was notified by the President of the Arizona Territorial Medical Association, Dr. F. E. Shine, that he had appointed me delegate from Arizona to the annual meeting of the New Mexico Medical Association.

The annual meeting was held this year at Las Vegas on September 6th, 7th, 8th

and 9th, and was full of interest and instruction from start to finish. Being lured away for a few hours by a curiosity to see Santa Fe, one of the Texas delegates and I failed to reach Las Vegas in time to hear the addresses of welcome by the Mayor, the President of the New Mexico Medical Society and the response; but were well repaid for our strenuous

hunt for the place of meeting by the delightful paper presented by Dr. C. E. Edson of Denver, "Painting and the History of Medicine, Illustrated with Lantern Slides."

The second day was devoted to the Section on Medicine. Thirteen papers were scheduled for that day. Whether that unlucky number preyed upon the imagination of our New Mexico brethren or whether the call of the sick was unusually strong, we never learned; but five on the programme failed to appear. The eight remaining papers, however, were sufficient for one day's discussion and I imagine all present were satisfied that thirteen papers in one day would have been an overdose. Many of the papers in the Section were very able indeed, and the authors are to be congratulated not only upon the scientific manner in which their subjects were handled, but also upon the spirit of enthusiasm which has led them on to accomplish something more than a living in medicine. This Section was handled by its chairman, Dr. C. M. Yater, according to the letter and spirit of the law.

When a man's time was up he was rapped down and could continue only by the suffrage of the Society. Personally, the strict enforcement of this rule was most satisfactory, and I would suggest to the Chairman of Sections, or Presiding Officers of the Arizona Medical Society that they would save themselves and others much annoyance by a similar procedure.

The third day was divided into two sections: The morning being the Tuberculosis Section, and the afternoon the Section on Specialties. Eighteen papers were listed for this day, eight failing to arrive. The ten subjects, however, which were presented were of unusual merit and if anything, led those of the preceding day in interest.

The annual banquet was held that evening at the Hotel Castaneda and Saturday was given up to the Section on Surgery. I very much regret that I was unable to attend the banquet and remain for the Section on Surgery. Both gave promise of much pleasure and profit.

At a meeting of the House of Delegates the visiting delegates from Arizona and Texas were voted honorary members of the New Mexico Medical Society and an invitation was given to attend all meetings of the House of Delegates. This courtesy was one which was appreciated very much and was a long step toward the closer union in medical matters of the neighboring states.

We hope at the next meeting of the Arizona Medical Association, which is to be held in Bisbee, to welcome a large number of delegates and members from our neighboring state societies, when we will endeavor to make their visit a delight both socially and fraternally.

October 27, 1911.

## CORRESPONDENCE

### "United We Stand; Divided We Fall."

Two years ago I located in Los Angeles in my present office. I inquired of all my nearest physicians as to average prices, i. e., per call, for obstetrics, minor surgery, etc. Was told the average charge per call was \$2.50 day and \$3.50 to \$5.00 night; \$25.00 for confine-

ments (normal), and \$35.00 to \$50.00 for instrumental delivery or complications. That minor surgery varied according to extent of injury and after attention required.

In cases of obstetrics calls were made previous, if physician was notified in advance, and nine or ten calls after were



made all for the one fee stated. When calls were made outside the city prices were from \$3.00 to \$10.00, according to time and distance.

Now to all this I have persistently and loyally adhered, observing ethics in all my conduct to my brother physicians of Los Angeles and vicinity, following the Golden Rule to the best of my ability.

Alas! My eyes have recently been opened, the scales have fallen from them, and behold! prices have been cut in every direction, and most unethical conduct on every side is observed. As a doctor said to me a few nights ago, "I am for myself, first, last and always, ethics and the Golden Rule to the winds," and I said, "Yes, so I observe generally, but thank God for the noble exceptions." Yet these same physicians first mentioned are members "in good standing" (?) of the State and County Societies and the A. M. A.

How can we as physicians expect to gain and hold the respect and confidence of the public in our dealings with their bodies and pocket books if we knife each other in this fashion?

Let us "turn over a new leaf," brethren, stick to the Golden Rule, otherwise

called ethics, form a "Mutual Protective Association," and stand together for the honor, the dignity and the protection of each other. Keeping steadfastly and honestly to the prices agreed upon, and fine violations and punish the offender; "suit the punishment to fit the crime," as it were.

I have seen this all worked out and it was a big success all round. We all know that many people we are called upon to serve cannot pay the fees charged or cannot pay at all, much less what we earn. Never mind, charge it anyway, let them feel it a just debt to be paid when possible, then let the physician himself make them a present of the bill in whole or in part—as he understands their circumstances, in this way he does not lower his own standing in the community, belittle his services or work hardship or injury to his fellow-laborers or their practice in any way.

Justice to all, brother physicians, and generosity, charity and kindness to our fellowmen, I say. What say you, gentlemen of the medical profession of our fair city of Los Angeles?

B. MOSBY SMITH, M.D.

314 W. 61st Street.

## ABSTRACTS

### GERMAN MEDICAL AND SURGICAL LITERATURE.

ABSTRACTED AND TRANSLATED BY  
HENRY H. LISSNER, M.D.

M. M. W., NO. 33, AUG. 15, 1911. J. ABELIN.  
UNIV. BERN.

#### Beginning and Duration of Elimination of Salvarsan in the Urine Following Intravenous Injection.

The author reviews at length the literature on the subject quoting Ehrlich, who says the elimination of Salvarsan lasts three to four days following Intravenous Injection. Fisher and Hoppe, who claim that in two or three days

elimination is complete, but that in the Stool it lasts five to six days.

After a rather careful chemical treatise on the form in which Salvarsan is found in the urine, the author reports a series of observations on the urines of patients injected and comes to the following conclusions:

I. That Salvarsan, following intravenous injection, is eliminated partly unaltered in the urine. He believes, with Lesser, "That Salvarsan, following intravenous injection, is too speedily eliminated, perhaps so rapidly that a part of it is eliminated unaltered."

II. The elimination begins almost directly after intravenous injection: 5, 10, 15 minutes. The duration of the elimination, according to his experience, lasts 5 to 6 hours. There are cases, however, in which the elimination takes a longer or shorter period.

M. M. W., July 25, p. 1618. Dr. Karl Grossman reports a case of Paroxysmal Tachycardia, in a man 45 years old, which was checked during the taking of the blood pressure. Grossman does not consider that the back pressure upon the heart could have been the cause of the control, since one case cannot be taken as a criterion; compression on the vagus in the neck may cause these attacks to be relieved and so Grossman reasons that the compression of the Brachial artery may increase the pressure in the carotid in the neck and indirectly affect the vagus.

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M. M. W., AUG. 15. DR. ARNO HOFFMANN. ICTERUS WITH FATAL TERMINATION FOLLOWING SALVARSAN.

Numerous cases of Icterus following the injection of Salvarsan have been reported. In all these cases the Icterus has been of either long or short duration without causing any untoward symptoms or having caused death.

We have had the opportunity to observe two cases of Icterus following Salvarsan injection. In the one case the patient made an absolute recovery after eighteen days. The other case died. The following is the history:

Hans L., fifteen years old, admitted to the hospital 12th month, 30th day, 1910, with Iritis of the right eye. According to the history and examination, it was taken to be of tubercular nature. However, a Wassermann and Stern serum reaction was positive, so inoculations were ordered. The symptoms improved somewhat, but slowly, and, during the treatment, a much more severe Iritis developed in the other eye, January 9, 1911. Since the mercury treatment seemed to have but little influence

on the course of the disease, he was given, on the 21st of February, 0.3 as a dose, of Salvarsan, intravenously. The evening temperature, after the injection, was 38 C., following this never over 37.2. On February 27th, Salvarsan 0.3 intramuscular. No rise in temperature following this injection. The Salvarsan seemed to have but little influence on the course of the Iritis, and the inflammation subsided under the use of hot compresses at the end of March. On the 7th or 8th of April, L. should have been discharged from the hospital but, on account of stomach and intestinal catarrh, with fever, he remained. From the 8th to the 14th of April, he had evening temperature of 38.2 after which he was fever free. On the 13th of April Icterus developed, which remained till death. The appetite, independent of the fever period, up to twelve days before death, was good. Then, for the first time, nausea, vomiting, distaste for all food, headache and sleeplessness. During the last three days entirely unconscious. The pulse since the onset of the Icterus was very slow, between 55 and 60; urine from March 14th on gave a positive Gmelin. Died on the 5th of May, 1911. According to the symptoms from the 8th to the 14th of April, we believed the patient to be suffering from catarrhal icterus, although with strict diet, rest in bed and full therapy, the icterus remained. While the liver dullness which never came below the margin of the ribs in the mammillary line, became lessened, and the loss of weight, which was evident from day to day, we believed that we could positively make a clinical diagnosis of one of the most severe organic liver diseases, namely, acute yellow atrophy. The autopsy showed microscopically "icteric coloring of all organs and icteric ascites." The liver presented the picture of acute yellow atrophy and was sent to the Pathological Institute of Jena.

Herr Professor Durek reports as follows: "The liver of fifteen-year-old Hans L. shows microscopically that it originates from a case of acute or more probably sub-acute liver atrophy. One sees on the cut section two distinct substances, namely: intense orange yellow swollen tissue, parts round in form and varying in circumference and, next to this a deep, sunken, dark red tissue in which a fine net-like structure is recognized. Sections of tissue taken from different parts of the liver and preserved in alcohol and formalin show this to be a rare form of sub-acute to sub-chronic liver atrophy, with decided regeneration of the liver tissue. In many sections in broad places a few small discrete islands of liver tissue are seen, but one can not be absolutely certain if these are formed from pre-existing liver tissue, or if these islands present a regenerated liver substance. The central portion of these islands is highly covered with icteric pigment. One sees in part the gall capillaries between the liver cells intensely injected with the ampula broadened at the ends. The trabecular structure is also very irregular. The portal capillaries in this region are very much widened, particularly also, the pericapillary spaces. At no place can one make out the characteristic structure of the liver. Under high power these places are seemed to be formed of a mesh work of very fine connective tissue fibres with spindle-formed cells and larger protoplasm red cell individuals, which resemble connective tissue cells (fibroblasts). Here, also, round cells, principally of the lymphocyte type, with dark round nuclei and small protoplasmic bodies, are found, in this tissue. In the meshes of this fine network are found isolated large cubical intensely pigmented cells with large shrunken nuclei; in part some of these cells have lost their nuclei. The protoplasm presents in various places only a fine cloudy structure. This

is evidently the last remnants of liver tissue and the degeneration of the liver cells. In isolated places red blood corpuscles are seen in this mesh work without any endothelial wall surrounding them showing hemorrhage.

"A third region independent of the two regions described shows a structure resembling granular tissue in which regenerated cells originating from the epithelium of the tissue are seen. It is a question if these rests have their origin from the epithelium of the gall capillaries, or if they could have originated from the liver epithelium. Since the disease followed undoubtedly the injection of Salvarsan and since the regeneration of the liver substance seems to be five to six weeks old, it is therefore my opinion that there can be no doubt that here the disease which caused the death followed upon the injection of the medicine."

It is a known fact that toxic infections can cause these rare changes in the liver. In this case, if one were to consider the acute yellow atrophy of the liver as a specific infection, the unknown etiology and the absence of the spirocheta are against this view. More serious, however, for consideration is the action of arsenic poisoning. While we know that hamoglobinurea or urobilinurea and icterus follow arsenical poisoning, particularly after ingestion of certain arsenical preparations, should not then also Salvarsan, which, according to our observation, in about 80 per cent., causes severe acute poisoning symptoms, namely: vomiting, headache, exanthemata, by prolonged action on the organism, be the cause of the symptoms emanating from the liver? The healthy or only partially affected liver would not produce symptoms following the dose of Salvarsan. If, however, a diffuse syphilitic hepatetis is present (which clinically is frequently not recognized), then, following a Salvarsan injection the arsenical poison strikes



into the liver cells and can through complete disturbance of the function of the organ cause the death of the individual.

M. M. W., AUG. 8, P. 1668. DR. GEORGE B. GRUBER.

Statistics of Peptic Affections in Stomach, Aesophagus and Duodenum. Dr. Gruber gives a carefully compiled critical statistical review of the cases under the title head of his article, in which he reports the cases coming to autopsy from 1906 to 1910, under the direction of Prof. H. Chiari, Pathologist at Strassburg.

Out of 4208 necropsies 1147 were performed on children under ten years of age. Out of this total, 170, or 4 per cent., showed either ulcers or scars. Leaving statistics on children out of the question, men were more frequently affected than women. Out of 170 autopsies with peptic affections, following are figures:

Ulcus oesophagi pept.... 6= 3.5 Proz.  
Erosio bezw. Malacia in-  
travit. oesoph. .... 9= 5.3 "  
Ulc. ventric. pept.....49=28.8 "  
Cic. post ulc. ventr. pept..21=12.4 "  
Erosio ventric. pept. ....53=31.2 "  
Ulcus duodeni pept.....42=24.7 "  
Cicatr. post. ulc. duodeni  
pept. .... 3= 1.8 "  
Erosio duodeni pept. .... 9= 5.3 "

This table shows 192 cases as against 170 quoted, but this is caused by the fact that in the same patient ulcer of the stomach and duodenum occurred. It is not uninteresting that out of 115 cases of ulcer, or rather ulcer scars, which were found in autopsy, it was only possible to diagnose 18 clinically. In the stomach, the pylorus and the lesser curvature were equally affected, each 32 times. Next in frequency, the posterior wall of the stomach 20 times. The greater curvature was less frequently involved, 7 times; and the cardia 4 times. Rarer still was the involvement of the anterior wall of the stomach, 2 times. In 27 cases the seat

of the ulcer was not accurately given in the protocol. Looking over the autopsy findings of these 170 cases of peptic ulcers it is seen that 104, or 61 per cent., had serious changes in the heart or blood vessels. In some cases, less serious changes in the intima of the aorta, carotid, etc., were seen. The fact that in 63 cases, 37 per cent. evidences of tuberculosis, obsolete in 34, were found, is not sufficient evidence on which Kodon bases his opinion that these round ulcers are caused by tubercle bacillus. In tuberculosis, where this disease shows itself most frequently, particularly in children (Meningitis), and in all individuals, the percentage of peptic affections is less. Peptic changes were found 8 2-10 per cent. following liver cirrhosis, 4 times following severe trauma; 6 times for burns of the second and third degree, and 6 times with definite alcoholics. In 6 per cent. they caused death from hemorrhage. In order to obtain the statistics of the frequency of the cases in which the peptic ulcer, or rather its resulting scar, formed the nidus for the development of a malignant tumor, from the same number of autopsies, the following figures were obtained, taking the aesophagus, stomach and duodenum:

1906 mit 1910

Alter. Jahre.	Oes.	Ventr.	Duod.	Oes.	Vtr. Du.
20-30	.	3-1	1-	.	4 1
30-40	1 1	4-6	..	2	10 .
40-50	3 .	15-6	..1	3	21 1
50-60	9 1	18-8	..1	10	26 1
60-70	13 1	19-10	..	14	29 .
70-80	2 .	5-5	..	2	10 .
80-90	.	4-1	..	.	5 .

139 cases of malignant tumors out of 98 were correctly diagnosed before death. The site of the ulcer was as follows:

Oesophagus ..31 x befallen (22.3 Proz.)  
Cardia ..... 8 x " ( 5.7 " )  
Kl. Curvatur ..17 x " (12.2 " )  
Gr. Curvatur...1 x " (10.1 " )

Hintere Mag-			
enwand. ....	3 x	“	( 2.2 “ )
Pylorus . . . . .	.63 x	“	(45.3 “ )
Duodenum . . . .	3 x	“	( 2.2 “ )

# ABSTRACTS OF AMERICAN SURGICAL LITERATURE.

ABSTRACTED BY J. EDGAR COLLORAN, M.D., LOS ANGELES.

Many articles have appeared recently on *Pyloric Stenosis* in Infancy, but it has remained for *Richter* in a classical study of eleven cases personally operated on to bring the subject to date. In his article in *Surgery, Gynecology and Obstetrics* for June, he says: “Pyloric stenosis in infancy has assumed a position of first importance in the diseases of the first weeks of infant life. Its relative frequency is indicated in the reports from the larger pediatric clinics. Dr. F. X. Walls, in a dispensary clinic of over five thousand patients annually, in addition to foundling hospital and private practice, has seen less than five cases of acute appendicitis in the last five years; in the same time he has had an experience of thirty cases of pyloric stenosis.” He then goes into detail with the symptomatology which in this review we can only partially abstract. The symptoms begin during the first weeks of the infant’s life, usually in the second, third or fourth; in some cases regurgitation of small amounts of food begins immediately after birth, possibly to remain slight and unnoticed until severe symptoms are ushered in after a week or two. First symptoms may not appear until late in the second month. The first symptoms to attract attention are the vomiting, constipation, and loss of weight. The vomiting may be excessive from the start. More usually an interval of several feedings separates the first attacks, the intervals becoming shorter, until vomiting occurs after each ingestion of food or water, or passes a feeding or two, to be followed by the vomiting of the accumulated amounts taken since the previous

emesis. It is of a peculiar propulsive type. In one instance the mother stated that the vomitus was thrown a distance of four feet.

The vomiting accompanying the ordinary digestive disturbances of infants is commonly accompanied by diarrhoea, both being the expression of the reaction of the intestinal tract to the same irritant. In pyloric obstruction the vomiting is accompanied by constipation, which, in all the cases, reaches a degree that may properly be described as absolute. There is no spontaneous stool, enemas bringing a bile-stained mucus, containing no food elements, and unaccompanied by flatus. In less complete grades only repeated enemas bring small results.

With the vomiting and constipation there are all the usual accompanying evidences of mechanical obstruction found in the adult—rapid loss of weight, profound depression, though not suggestive of the collapse of gangrene. With the diminished ingestion of fluids the baby presents the shrunken appearance of excessive dehydration. The urine is greatly diminished, and finally almost totally suppressed. Dr. Walls has called attention to the frequency with which the brick-red deposit caused by the great concentration of the urine is found.

He then states that the loss of weight is rapid and intense and quotes from three of his cases to show the same. Again quoting from the article: “Examination of the baby’s abdomen reveals data which, in our series of cases, have been constant. Inspection immediately reveals a peculiar conformation of the abdomen. The upper abdomen is full, tense and bulging, and is made more prominent by a marked retraction of the hypo-gastric region. It is said that the normal infant’s stomach can not be outlined by palpation. We have repeatedly demonstrated, by laparotomy that the tense, bulging mass, feeling to

the fingers like a cyst, which can readily be outlined by palpation, is in truth the distended stomach, made more evident by the collapsed and empty state of the bowels. Slowly moving peristaltic waves course over the stomach from left to right. The ingestion of food or water greatly increases their size and frequency. They can readily be seen from a distance, or photographed. In the cases with hypertrophy, gentle palpation reveals a small solid tumor, very freely movable, lying above and to the right of the umbilicus. Various writers have given the frequency with which the little tumor can be found as 25 to 75 per cent. We believe that proper, persistent palpation will reveal it in most cases in which it is to be found at operation. In our experience it is not present in the spasm cases. In our cases two were diagnosed as 'pyloric spasm;' no tumor palpated; none was present at operation. Nine of our cases were diagnosed as 'pyloric hypertrophy.' In all of them the tumor was felt before operation and its presence demonstrated at operation.

"There has been sufficient difference in the clinical course of the two types of cases to enable us to make a differential diagnosis that has been verified in all cases operated upon.

"Regarding the surgical treatment, he mentioned three types of operation—divulsion, pyloroplasty, or one of its modifications, and gastroenterostomy.

"Could divulsion be carried out successfully, it would be the simplest and most rational of all operative methods.

"Superficially, pyloroplasty appears to us as pressing parts in nearly physiological conditions; especially has it seemed important to cause the stomach contents to pass through the duodenum since the importance of the duodenal secretion has been recognized. It is a more difficult operation to perform than gastro-enterostomy and is likely to be accompanied by a higher death rate in

the same class of cases. In the case of stenosis with hypertrophy, the rigidity and mass of the tumor render it particularly difficult. Speaking of gastro-enterostomy, he says it relieves the obstruction at once. The technique has been highly developed. In spite of possible theoretical objections, extensive experimental and clinical studies have failed to reveal any altered metabolism due to diversion of stomach contents directly into the jejunum without the intervention of the duodenum. Persistent biliary vomiting of the earlier days of gastric surgery has disappeared with the development of modern technique. Secondary jejunal ulcer has been reported but once (Mikulicz); it followed an anterior gastro-enterostomy, an operation which would not be done today.

"The operation: I have been doing the typical posterior operation, without any special modification in the technique, except in the use of suture material. I have always felt that surgeons are commonly in the habit of using suture and ligature material of a much heavier kind than is necessary or desirable for the purpose. In intestinal suturing the finest kind of silk obtainable, used in the finest cambric needles, is amply strong. In experimental work I have used size '000' silk, and even human hair, and have found it perfectly satisfactory. In my gastro-enterostomies I am using '02' or 'A' silk of the kind bought in the dry goods stores, in a size 10 cambric needle. It seemed to me that the peritoneal adhesions in my first case were caused by seepage due to the rather heavy suture material that I used, and which had the capillarity of a wick. In respect to capillarity, I am not at all certain that celluloid linen has any superiority over silk, and I prefer to use the latter."

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In the *Illinois Medical Journal* for August Lespinasse gives the results of his experiments in "Transplantation of



Legs." He says the skin, fat, fascia, muscles, bone and nerves are easily repaired by well-known and standard technique. The blood vessels and lymphatics are vitally important structures that must be reunited and their union is a real problem. By careful approximation of the fat and fascia through which the larger trunks run the lymphatic canals will re-establish themselves in from two to three weeks. This is proved by the occasional replacement of a completely severed finger tip, instances of which have come under the observation of all of us. In our experiments, the legs were very edematous from one to three weeks, and then they always returned to normal, showing that the union of the lymphatics *will* occur and is easy of accomplishment surgically.

In our first experiment we cut the femoral vessels, reuniting them and then cutting about two-thirds of the thigh muscles. In two weeks' time the wounds were healed and the animals were using their legs as well as ever. Only slight operative edema occurred in these cases.

In our second series of experiments we cut all the structures of the leg except the nerve, bone, and femoral vessels. The nerves and vessels were stripped of their sheaths and dissected down into their substance. The periosteum of the bone was cut. In this way all the lymphatics except those of the bone were destroyed. These animals all had good legs after healing.

In the third series, all the structures were cut except the femoral vessels which were most carefully dissected out. All of their sheaths and most of their adventitia were cut across. The only lymphatics that were left were in the substance of the blood vessel walls themselves. These animals all had good non-edematous legs after healing.

The fourth series consisted of the complete severance of the leg from the

body and its replacement by repair of all the various structures, the blood vessels being united by using absorbable magnesium rings. In this series the edema reached its maximum the fourth day. The sutures were then loosened; the dogs would get up and walk around and lick their wounds. As the legs were anaesthetic and not painful, the dogs would lick their legs off. After the operation, the legs remained warm and the dorsalis pedis artery could be felt to pulsate for a variable period of time up to one week. Most of the legs became cold on the fourth day, but in the last few cases I used very heavy skin sutures, and as the dogs could not lick off their legs, they were under observation for a longer time. In these cases the dorsalis pedis artery pulsated one week and the legs remained warm for the same length of time.

He gives the results of his experiments on two human patients; one had received severe crushing injury and died on the fourth day from gas-bacillus infection. The other patient died twenty-four hours after the operation, but the pulse was present and the limb was warm up to the patient's death.

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In Carrel's article on "Blood Vessels" in the *Journal of Experimental Medicine* for August, he says: "Under ether anaesthesia a segment of glass tubing about five centimeters long, coated with paraffine, was introduced into the abdominal aorta of a dog. The pulsation of the femoral arteries remained normal. Six days after the operation, the animal was allowed to run. Paralysis of the posterior limbs developed and the pulsation of the femoral arteries disappeared. It was thought that the glass tubing had been displaced by the movements of the animal and that coagulation had occurred. Laparotomy was performed, the tube removed, and the aortic circulation re-

established. The glass tubing was obliterated by a soft clot of recent formation. But it was found that the glass wall, inside of which circulation had taken place for six days, was covered by a thin, whitish membrane. A tube having the appearance of a thin-walled artery could be extracted from the glass tubing. Microscopical examination showed that it was composed of a dense fibrin infiltrated by many leucocytes. It is probable that if the dog had been quiet and the glass tubing had not been displaced, the fibrinous tube would have become organized and would have formed inside of the glass tubing a new intima, in the manner of the canalization of a dissecting aneurism.

In the second experiment, a piece of the anterior wall of the abdominal aorta twenty millimeters long and twelve millimeters wide was resected and replaced by a piece of rubber. This was removed fifteen months later. The lumen of the vessel was found to be normal. There was neither stenosis nor dilatation at the level of the patch, but the wall was thickened. On the external side of the aorta there was no evidence of a patch and the adventitia was thicker than normally. The vessel was opened by an incision made on its posterior wall. The intima was smooth and glistening. The location of the resected piece, which appears as an oblong area, neatly circumscribed, although having about the same appearance as the adjacent parts of the vessel, is easily detected. A longitudinal section shows that the piece of rubber was present in the wall. On its external side, a new adventitia had developed, while its internal side was covered by a thick layer of intimal tissue.

To summarize: The part of the abdominal aorta extirpated and replaced by a patch of rubber had been regenerated by the adjacent parts of the vessel. The caliber of the aorta examined fifteen months after the operation had

not been modified, and the function had not been impaired. The experiment indicates, therefore, that a foreign inert substance, under certain conditions, does not produce an obliterative thrombosis, but can, indeed, be used in the reparation of the wall of a large artery.

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*Surgéry, Gynecology and Obstetrics* for June gives a new and simple "Method for Testing the Viability of Strangulated Intestines." After describing the patient, the author says: "Here was an intestine whose viability was questionable. It was highly desirable that it be replaced, if this could safely be done. I accordingly applied hot compresses, wet with normal salt solution, for fifteen minutes. Not only was there no improvement in the circulation of the parts which had been strangulated, but the adjacent normal intestine was becoming edematous and of a darker red color than before. I realized now that it was the traction which I was making which interfered with the circulation, and, to relieve this traction, I temporarily reduced the affected parts, at the same time delivering some of the adjacent intestine, so that I could again withdraw the affected parts for inspection. After allowing the previously strangulated parts to remain in the abdominal cavity three minutes, I withdrew them. The change was striking. All swelling had left the intestine, the color was normal, the furrows at the two constricted points could scarcely be seen. All that was left of the evidences of circulatory disturbance was an area of venous stasis, one inch long and one-quarter of an inch wide, on one side of the mesentery, close to the bowel.

"The hernial contents were at once reduced for the second time, this time permanently, and the operation completed, the patient making an uneventful recovery.

"Without this temporary reduction, I certainly would not have dared to replace this intestinal loop, and would, perforce, have resorted to one of the less desirable alternatives mentioned above, in which event the outcome as to the life of the patient would have been made less certain. I recommend the further trial of this procedure of temporary reduction. In the matter of time-saving alone it is advantageous, but in the doubtful cases, where other methods fail, it may decide the vital question as to whether to replace the bowel or not. What more efficient hot application can one conceive than that which the intestine received when replaced in the abdominal cavity and surrounded by the abdominal contents, and where can the circulation of a part be favored more than when that part is in its normal location? It must be admitted that there are cases where this temporary reduction is contra-indicated. In some cases, the progress toward gangrene is so far advanced that the reduction would be fraught with the danger of rupture of the intestine and consequent infection of the peritoneal cavity. In other cases where the fluid contents of the sac or the surface of the strangulated parts show signs of infection, the propriety of the procedure might be questionable; but there are many cases where I can think of no possible objection to the procedure."

#### FRENCH SURGICAL JOURNALS.

TRANSLATED AND ABSTRACTED BY J. A. VAN KAATHOVEN, LOS ANGELES.

On the 11th of July, the Academy of Medicine of Paris listened to a report by Roux, Chanteresse, Chanffard and Roger recommending the obligatory reporting of Anterior poliomyelitis as a contagious disease. The authors proved definitely the contagious nature of the malady, based principally upon the work of Flexner and Lewis, Osgood and Lucas, etc. They recommended isolation for three weeks, fumigation, etc.,

after the disappearance of manifestations of the disease, etc.

The Academie accepted the report, requiring the obligatory report of both typical and doubtful cases—both during times of an epidemic and of sporadic cases—the members of the household to be isolated and children kept from school for three weeks. Articles soiled by the patient to be sterilized and the premises fumigated.

*La Presse Medicale*, Aug. 12th, 1911:

Leriche and Amand report a third case of subacute hemorrhagic pancreatitis.

They report their case as follows:

A man of 48. Much emaciated, very anemic, complaining of abdominal suffering for two weeks. Pains started suddenly, located in the left flank though also present at the umbilicus, radiating toward the back, becoming daily more and more severe. Upon palpation a tumor in the epigastric region was easily outlined, it being irregular and tender, apparently arising from the posterior portion of the flank. The patient was very much constipated, had a slight temperature and marked digestive disturbances. A probable diagnosis of cancer of the splenic flexure with local peritonitis and perinephric suppuration was made and operation decided upon. Upon incision an encysted hematoma with about a coffee-spoonful of pus was discovered in the lesser omentum. Though the evacuated clots were replaced by many packs hemorrhage recurred and the patient gradually sank, dying the next day.

The authors draw attention to the fact that a painful tumor, occupying the position of the pancreas, should always direct the surgeon's attention to this organ, even though in symptomatology it may resemble other things—that he should keep in mind the possibility of a chronic, or at least subacute, hemorrhagic pancreatitis, and that in these cases expectant treatment is in-



dicated unless the symptoms are too urgent. The best results will be obtained by allowing nature to play its part, rather than possibly start an uncontrollable hemorrhage by too early surgical interventions.

*Revue de Chirurgie*, August:

Vincent, chief of charity hospital at Lyons, advocates resection of the head of the femur in coxalgia in early childhood—when other means have failed—and then only. In his opinion it is a life-saving procedure too often too long delayed, leading to good permanent results. The author does not recommend this operation in adults or older children. He advocated covering the end of the bone with periosteum and thinks the inter-position of the flap of fascia or muscle a valuable adjunct to the method. The operation should be followed by careful and persistent after treatment to obtain best results.

In the same volume we find an article by H. Gandier, professor of clinical surgery at the Univ. of Lille, and P. Berstein, military surgeon, on osteomyelitis of the sacrum.

The authors collected twenty-seven cases from the literature. They report their own case: A child of two admitted to the hospital with a diagnosis of low Potts disease. A mass was found over the sacrum having been present only two weeks. The child was very toxic, practically overwhelmed by its poisons, having a subnormal temperature, etc. Incision and drainage was not followed by any improvement, death occurring in three days. Autopsy showed extensive disease of the sacrum with the presence of a sequestrum—no lesions in any other portion of the body, though the cauda equina was floating in pus.

The authors draw attention to the greater mortality of this disease as compared to osteomyelitis of any other portion of the spine. They explain this high death rate on anatomical grounds.

The bone is ensconced between the wings of the ilium, covered by thick masses of muscle. Hence diagnosis is difficult even if pus formed within the bone breaks through its involucrum, it requires time to appear on the surface. Also the germs in the deep cavity have an unusual opportunity for development, leading to the production of much toxic material, often overwhelming the patient before the focus is discovered. The symptoms resemble those of acute epiphysitis and the Typhoid state of many infections. The writers draw attention to the fact that in such a condition, the skeleton should be carefully examined, and the sacrum should receive its proper share of consideration. The organisms found are usually the staphylococcus, albus and aureus and the streptococcus. Infection of the spinal canal itself takes place more rarely than in infection higher up, the mortality being due mainly to toxemia. Treatment is summed up in immediate operation, consisting of evacuation and drainage. The pus may burrow anteriorly and point behind the rectum, or enter the psoas sheath appearing at the usual points of exit of psoas abscesses, or may appear, as in the reported case, posteriorly by the side of the dorsal spines.

Even with immediate operation only seven cases are reported as cured. If the condition becomes chronic, the surrounding joints may become involved or the patient may succumb to a pyemia.

*General Archives of Surgery*, July 20th:

We find a series of three abstracts of papers by Moushet., Korbea, and Kienback, respectively, on dislocation of the semimur bone.

The essentials of the articles are as follows:

Difficulty of diagnosis without X-ray, hence necessity of taking them in all cases of wrist injury.

Danger of permanent injury to me-

dian nerve as it is stretched over the dislocated bone as a string over the bridge of a violin.

Danger of leaving the bone in abnormal position leading to traumatic arthritis of greater or less severity.

Danger of necrosis of the bone due to interference with its nutrition.

The lesion is often associated with fracture of the scaphoid or styloid processes of radius and cuboid.

As before stated the diagnosis is difficult, resting principally upon the X-ray. On examination we find a hard, bony tumor at the wrist joint usually associated with much swelling, sometimes a torsion of the hand. There is marked limitation of motion and movement of the wrist greatly increases the pain.

Treatment consists of attempts at reduction under general anaesthesia if seen early—if late, removal of the bone and of other fragments if present. Prognosis is good if early treatment is instituted; guarded or more serious if diagnosis is *overlooked*.

In the Bulletin of the Academie of Medicine of the 25th of July we find the following article by Delagimin upon General Anaesthesia, the circulation being reduced by exclusion of the four limbs.

In 1907 Klapp proposed this method of anaesthesia. This observer was struck by the ease with which patients who had previously lost a great deal of blood were anaesthetized. He furthermore claimed that the blood absorbed the ether vapors in the pulmonary alveoli, hence if the corpuscles became surcharged with the narcotic, loosening of the bands would immediately flood the system with pure un-narcotized blood, hence an imminent catastrophe be avoided.

The author gives an analysis of 532 cases in which the method was employed. Bands of cloth were used as the constricting agents—pressure being sufficient to control both venous and

arterial circulation. Tourniquets were applied at the root of the limbs. The respiration was increased in all cases going as high as 79 per minute. The pulse did not vary. Blood pressure is likewise not altered. Time required to anaesthize was reduced to almost one-half, relaxation was complete, less of the drug was required, return to consciousness was more rapid, after effects upon viscera much reduced, vomiting decreased in percentage and severity. Transitory or permanent albuminuria much reduced in number, post operation icterus scarcely ever observed. In case of syncope loosening of the constrictions, removed much of the danger by diluting the blood laden with the narcotic.

The author claims no injury or inconvenience resulting from the pressure bandages aside from a numb sensation and occasionally a transitory mottled condition of the skin, a slight paralysis, probably due to faulty technique.

In the 1179 cases the writer had one case of phlegmasia alba dolens and slight edema without thrombosis in four more all gynecological cases. Other observers report a much higher percentage of thrombosis—due to faulty methods in the opinion of the author. The only contra-indications mentioned by the patron of the method are extensive myocarditis or lesion of the vascular system, as varicosities, etc.

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ABSTRACT OF AMERICAN AND ENGLISH PUBLICATIONS ON MEDICINE. BY DONALD J. FRICK, M.D., LOS ANGELES.

In going over the literature for this review it seemed best to take up the English periodicals first. Contrary to the usual conditions present, there seemed to be little worth while in the last two months to abstract. The result has been that it is necessary to fall back on the American literature, with which you probably are fairly familiar. Articles have been chosen at random which seemed of interest.

The periodicals, both foreign and American, are filled these days with articles on the heart and circulation. Of the six papers in the *Quarterly Journal of Medicine*, July, 1911, four are upon the heart or circulation. Abstracts of two are given below:

The first by C. E. Lea on the Etiology of Auricular Fibrillation describes briefly the normal conditions within the heart, and then shows what happens when auricular fibrillation occurs. The irregular impulses passing through the a. v. bundle cause irregular and spasmodic contractions of the ventricles. Polygraphic tracings show, first, continuous irregularity both as to frequency and size of ventricular systoles with absence of relationship between height of ventricular wave and length of preceding diastolic interval, a feature which distinguishes it from extra systoles. Second, absence of auricular wave a and the presence of the ventricular form of venous pulse.

His conclusions from 69 cases of auricular fibrillation are:

1. Auricular fibrillation as a definite clin. entity can be recognized.
2. 32.8 per cent. of the cases occurred with cardio. sclerosis; 31.3 per cent. with mitral stenosis, and 23.8 per cent. with cardiac dilatation.

Halst and Monrod-Krohn, in this same journal discuss two interesting cases of "Adams-Stokes Syndrome," one with a calcareous mass which completely destroyed the main branch of the a. v. bundle. A second, of perhaps more interest, in which the a. v. bundle was normal, but marked degeneration neuritis of the vagal nerves was found. In their discussion of this last case they mention two more that have been described, one by Esmein and the other by Laslett. They seem, however, of little value as proof that Adams-Stokes Syndrome can be produced by vagal degeneration as Esmein's evidence of vagus interference was entirely based on an X-ray picture showing a mediastinal tumor at the base

of the heart. Laslett's case did not come to autopsy, so vagal injury was merely a surmise.

Cecil and Soper's case reported in the *Archive of Int. Med.*, July 15, 1911, of "Meningococcal Endocarditis," with septicæmia without meningeal symptoms and their review of four cases of meningococcal endocarditis and five cases of meningococcal septicæmia taken from the literature is of interest. Such cases being of definite value as showing the probability of meningococcal meningitis being of hematogenous origin, rather than due to direct extension of the infection from the nasal cavities to the base of the brain.

"Pernicious Anaemia" has always a fascination, as it is one of the unsolved problems with as a rule a classical picture. In Moffitt's article in *Amer. Journal Med. Sci.*, Oct., 1911, "Is Pernicious Anaemia of Infectious Origin?" he compares the symptoms and progress of pernicious anaemia with that of trypanosomiasis or piroplasmosis—the condition in many places running parallel courses.

1. Anaemia is a prominent feature in pernicious anaemia, and trypanosomiasis and piroplasmosis being severe in infantile splenic anaemia due to infection with *Leishmania infantum*. Texas fever in cattle shows almost the identical picture of pernicious anaemia Leukopenia, relative lymphocytosis and high color index are usually features of the protozoal diseases.

2. Fever occurs in 79 per cent. of all cases of pernicious anaemia (Cabot). It may continue for weeks, may recur periodically, or may be absent during long remissions. Similar conditions are found in tripanosomiasis. Certain cases of pernicious anaemia have high temp., profound exhaustion, enlarged spleen, marked nervous symptoms suggesting a rapidly progressing infection.

3. The remissions are among the most remarkable features of the disease. Similar remissions are characteristic of a number of protozoal infections. The re-



currence of all clinical phenomena of the disease after remissions of 5, 10, 15 and even 20 years, are similar to Todd's findings in human and animal trypanosomiasis in which 5-8 years have elapsed between symptoms.

4. The nervous symptoms and lesions of syphilis, pernicious anaemia and trypanosomiasis are, as Mott and others have pointed out, decidedly similar.

5. Certain lipid substances seem to play a role in hemolysis in pernicious anaemia. Lipoid bodies are likewise increased in spirillosis, trypanosomiasis and syphilis.

6. The only remedies of value in pernicious anaemia are arsenic and arsenical compounds. These are specified in some protozoal diseases.

Equine pernicious anaemia can be transmitted from animal to animal; it occurs in epidemics. It has a good many of salient features of human pernicious anaemia.

Moffit was not able to find any organism in the blood, either by culture or inoculation, but intends trying large amounts of blood in culture from circulation and splenic puncture, also inoculation experiments with dogs, monkeys and horses. Especially taking the blood from those rapidly progressing cases.

Russell, U. S. A., in the *Journal of Amer. Pub. Health Assoc.*, reports on the technique and results of "Anti-typhoid Vaccine" in the American Army. Three doses should be given: First, 500 million bacteria, second and third doses one billion. 95 per cent. had no general reaction, merely the local one which disappears in 48-72 hours. Among the vaccinated (11,771) three cases only have appeared. One of these was evidently infected before the first dose, the other two were so mild as to have been impossible of diagnosis without blood cultures. During the same period there were 306 cases among the unvaccinated.

## BOOK REVIEWS

We are in receipt of the following reprints:

"Suits for Alleged Malpractice," by George W. Gay, M.D., of Chestnut Hill.

"Mosquito Destruction in the Tropics," by J. A. LePrince, C.E., A.M., Chief Sanitary Inspector, Isthmian Canal Commission, Ancon, C. Z.

"On Active Immunization in Tuberculosis," by H. J. Achard, M.D., of Chicago.

"Tonsillectomy," by Burt Russell Shurly, M.D., Detroit, Mich.

"The Therapeutic Use of Tuberculin," by David R. Lyman, M.D.

"Manifestations of Thyroid Disease in the Upper Respiratory Tract," by Burt R. Shurly, M.D.

"An Investigation of Postoperative Conditions Five to Ten Years After Intubation," by Burt Russell Shurly, M.D.

"The Influence of Glandular Pharyngeal Tissue (Waldeyer Ring) in the Causation of Rheumatism and Endocarditis," by B. R. Shurly, M.D.

"Enucleation of the Fauical Tonsils," by B. R. Shurly, M.D.

"President's Address. Tendon Transplantation," by Carl Kurtz, M.D., Los Angeles.

"Intestinal Hemorrhage in Hernia," by Rexwald Brown, M.D., Santa Barbara.

"The Relation Between Blood Pressure and Barometric Pressure, Especially in Pulmonary Tuberculosis," by J. L. Pomeroy, A.B., M.D., of Monrovia, Cal.

"Recent Researches in Mental Medicine, Especially in the Etiology and Treatment of Dementia Precox and General Paralysis," by L. Vernon Briggs, M.D., Boston, Mass.

"Stomach Disorders Requiring Surgical Intervention from the Viewpoint of an Internist," by Charles D. Aaron, M.D., Sc.D., Detroit, Mich.

"Report of a Case of Carcinoma of the Splenic Flexure of the Colon Treated with the Neoformans Vaccine," by Charles D. Aaron, M.D., Sc.D.

"Simplified Technique for the Administration of Salvarsan Intravenously," by Charles H. Chetwood, M.D., Professor of Genitourinary Surgery, New York Polyclinic Medical School and Hospital.

"Report of a Case of Deep Cervical Abscess from Stricture of the Esophagus, and Report of a Case of Purpura Hemorrhagica, with Abscess of the Deep Cervical Lymphatics," by John J. Kyle, M.D., Indianapolis, Ind.

"Some Observations Upon the Removal of the Middle Turbinate Body," by John J. Kyle, M.D.

"Cyst of the Thyro-Glossus Duct. Report of a Case," by John J. Kyle, M.D.

"Differential Diagnosis of Labyrinthine Suppuration and Cerebellar Abscess," by John J. Kyle, M.D.

"Laennec: The Great Internist," by James Dudley Morgan, A.B., M.D., Washington, D. C.

"The Stethoscope: A History," by Daniel S. Lamb, A.M., M.D., Washington, D. C.

"The House Fly in Its Relation to Public Health," by William B. Herms, College of Agriculture, Agricultural Experiment Station, Berkeley, California.

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VOL. I—GENERAL MEDICINE. The Practical Medicine Series, 1911, edited by Frank Billings, M.S., M.D., and J. H. Salisbury, A.M., M.D. Price, \$1.50. The Year Book Publishers, 40 Dearborn St., Chicago.

The trend of authoritative opinion upon many phases of medical thought often leads us back to further consideration of theories, slighted for the newer hypotheses, advanced in our ignorance of cellular physiology.

Immunity is reviewed. The old and the new is intermixed.

"Modern opinion has during the last few years tended to swing back towards Metchnikoff's doctrine; not, indeed, in its original simplicity, but in the sense that the ordinary means by which invading bacteria are destroyed is phagocytic in essence."

In treatment, the rational use of vaccines is chiefly applicable to localized infections, since in general infections the system is already sufficiently stimulated by the toxins and bacteria which have gained entrance to the blood.

Under "Tuberculosis," J. Lossen is of the opinion that the use of various concentrations of tuberculin for cutaneous reaction affords no positive assistance in the specific diagnosis of an active pulmonary tuberculosis, and the same is true of the ocular reaction which may be negative."

F. M. Pottenger's findings in tuberculin treatment are that "While the intelligent use of tuberculin offers the patient suffering from tuberculosis the greatest opportunity for establishing immunity and improving or curing his infection, yet its proper administration is so difficult that comparatively few patients who are being treated with it are receiving the full advantage which can be gained from its use."

Mercury Succinimide by deep intermuscular injections, daily, has been credited with wonderfully rapid benefits in tuberculosis. Combined with the treatment are all the usual instructions for nutritious diet, fresh air, sunlight, etc.

S. Flexner and P. A. Lewis have developed a serum for Poliomyelitis, but the establishment of active immunity has not been secured with any uniformity. Symptomatic treatment must still be used for the earlier stages, while tendon and nerve transplantation will enable us to relieve some of the after effects.

Diseases of the circulatory organs occupies a third of the book. A. Plehn,

speaking of the heart, believes it a good rule to doubt the existence of serious diseases of the heart so long as the size and shape of the heart are unaltered.

A Pith-Ball Manometer and two mercury sphygmometers are shown and the technic of the use is given. One is surprised not to see included Dr. Roger's sphygmomanometer. It being an instrument embodying the principle of the steam gauge though much refined.

In chronic Bright's Disease, with scanty urine and high B. P., Herringham believes that digitalis is indicated to help recover the level of excretion. Hot packs and injections of pilocarpin nitrate being used to remove some water and salts by perspiration.

C. W. D.

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GENERAL SURGERY—Murphy. Practical Medical Series, 1911, Vol. II. Price, \$2.00. The Year Book Publishers, 40 Dearborn St., Chicago.

Twelve very interesting pages are devoted to operations upon blood vessels—Lespinasse's method utilizing pure magnesium discs is illustrated on page 173. In principle it greatly resembles the old Murphy button. A magnesium disc is chosen with an opening equal to the lumen of the vessel to be joined. Eight suture openings are in the margin of the disc. The blood vessel is passed through the disc and four stay sutures secure it to the disc. Similar treatment of the other blood vessel end makes it ready to approximate the discs. This is done by four mattress sutures through the eight suture openings. Three to three and one-half pounds pressure unites the ends of the blood vessel without rupturing its coats. Keeping the blood vessel ends moist with saline solution is an important part of the technic. The magnesium disc is absorbed slowly.

Lenormant illustrates a simple method of obtaining extension by nails driven into the lower condyles of the femur in fractures of this bone. Weight sufficient to bring the fracture ends together is suspended from the nails.

The early operative treatment of diffuse peritonitis has received much attention since Murphy's report of 49 cases with but two deaths. None of his cases were over 40 hours old. Diffuse peritonitis two, three or four days after perforation does not respond as readily to operative treatment, but even these bad cases show surprising results. A. G. Gerster reports 461 cases of this kind, beginning with a mortality of 79 per cent. in 1899, to only 14 per cent. in 1908. This vast improvement he attributes wholly to better surgical treatment.

All surgeons reporting cases agree upon two essential points—suppressing the cause, and quickly evacuating the pus. Dry cleaning of the peritoneum, and saline flushing, each has its advocates. In severe cases most prefer thorough irrigation, with free drainage of Douglas' pouch, rubber or glass drainage tubes being used, the patient in Fowler's position. Post-operative measures are early opening of the bowels, morphine, and continuous proctocolysis.

C. W. D.

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SEWAGE POLLUTION OF INTERSTATE AND INTERNATIONAL WATERS. With Special Reference to the Spread of Typhoid Fever. I. Lake Erie and the Niagara River. By Allan J. McLaughlin. Hygienic Laboratory. Bulletin No. 77, July, 1911. Treasury Department. Public Health and Marine-Hospital Service of the United States.

This is an important document, so far as the public health goes, and emphasizes the fact that the utilization of the knowledge at hand is sufficient to make typhoid fever a rare, if not an extinct, disease. Every case of typhoid fever is a sad commentary upon the esthetics and decency of the community in which it is contracted. No civilized community is worthy the name that will tolerate the pollution of a public water supply by human excrement. The filtration of such polluted water may be a necessity at times, but must arouse a feeling of repugnance upon the part of the people who are informed upon the subject. The Chinese pharmacopeia may utilize human



excrement, but American physicians do not endorse the use of diluted feces for the alleviation of thirst or other domestic purposes, and it surely will not require much education of the American public to banish this old but disgusting custom. The knowledge we possess concerning the cause of typhoid fever will lead to its banishment. Already the disease is becoming comparatively rare in our more civilized communities. However, only too often a sojourn at a pleasure resort, or a so-called health resort, is followed by typhoid fever as a sad sequence. Every case of typhoid fever should be rigidly investigated as to its origin. The Bulletin is replete with maps, cuts and statistics, and with concise statements forcibly emphasizes the importance of a pure water supply in the elimination of typhoid fever.

G. E. M.

LIPPINCOTT'S NEW MEDICAL DICTIONARY, a vocabulary of the terms used in medicine, dentistry, veterinary medicine, and the allied sciences, with their pronunciation, etymology, and signification including much collateral information of a descriptive and encyclopedic character, by Henry W. Cattell, A.M. (Laf.), M.D. (U. of P.), Editor of International Clinics, Fellow of the College of Physicians of Philadelphia, etc. Freely illustrated with figures in the text. Second edition. Philadelphia and London, J. B. Lippincott Company. Price \$5.

This attractive work comes to us with the following line from the publishers:

"You of course know that this was the first Medical Dictionary to contain veterinary and medical terms, and medical biographs; the first to use capitals and small letters, making it a first guide to capitalization. The first to indicate the B. N. A. terms, and the drugs that are official in the Pharmacopeia.

"It contains a greater number of words and definitions than any other selling at the same price, and we believe you will agree with us that it gives the clearest definitions, and the greatest amount of information."

It was first published in August, 1910, then reprinted November, 1910, and this new edition printed August, 1911. Such a record as this must delight the author and the publishers. We certainly approve of the use of capitals and small letters in a way that makes it a guide to capitalization. Throughout, the volume is eminently satisfactory. As we turn from page to page, we cannot see anything but what is worthy of commendation.

A POCKET MEDICAL DICTIONARY giving the pronunciation and definition of the principal words in medicine and the collateral sciences, including very complete tables of the arteries, muscles, nerves, bacteria, bacilli, micrococci, spirilla, and thermetric scales, and a new dose list of drugs and their preparations, in both the English and metric systems of weights and measures, based upon the eighth revision U. S. Pharmacopeia, also a veterinary dose table by George M. Gould, A.M., M.D., author of "The Illustrated Medical Dictionary," "The Practitioner's Dictionary," and the "Student's Medical Dictionary." Sixth Edition, Revised and Enlarged, 34,000 words. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1911. Price, \$1.00 net.

This comprehensive dictionary of 34,000 words comes to us in the sixth edition. The Gould dictionaries are having a great sale and this smallest of them all fills its place. The young physician who will carry one of these in his pocket and when he has a few minutes leisure open to any page and cast his eyes over it, will find that he is taking a valuable post-graduate course.

A TREATISE ON BACTERINS (BACTERIAL VACCINES). Theories of Immunity and of Bacterin Therapy, from a practical standpoint and intended for the general practitioner. Issued by the H. K. Mulford Company, Philadelphia, etc. Third edition, June, 1911.

We are glad to encourage this form of advertising. These working bulletins exert no little influence in an educational way. The list of references, numbering 96, is alone sufficient to entitle the brochure to a welcome place in the library of any physician.

G. E. M.

"ANATOMY," a Manual for Students and Practitioners. By John Forsyth Little, M.D., Assistant Demonstrator of Anatomy, Jefferson Medical College, Philadelphia. Second Edition, Revised and Enlarged. Illustrated with seventy-five engravings. Lea & Febiger, Philadelphia and New York.

Here is a very valuable book just off of the press. The cuts, although uncolored, appear to us unusually graphic and take it all in all it makes a good volume for the student and for quick,

ready reference by the practitioner. It is also well adapted to the use of nurses.

PLASTER OF PARIS AND HOW TO USE IT. By Martin W. Ware, M.D., Adjunct Attending Surgeon, Mt. Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor of Surgery in the New York Post-Graduate School. Second Edition. Thoroughly Revised, Enlarged and Profusely Illustrated. Price, Cloth, Square Binding, \$1.25; De Luxe, Full Leather, Flex., \$2.50, Postpaid. Surgery Publishing Co., 92 William Street, New York, U. S. A.

## THERAPEUTICAL HINTS

Assured therapeutic results must follow the administration of an active remedy in which this great aim has been attained. Digalen, manufactured by the Hoffmann-La Roche Chemical Works, exhibits this quality in an enhanced degree. Improved and elegant pharmacy is well illustrated in the Digalen Tablets which the firm has now placed on the market. The Tablets of Digalen are prepared in a convenient and elegant form, and are readily soluble in water. The exact quantity of Digitoxin amorphous Cloetta in every Tablet is accurately determined. The Tablets of Digalen are thoroughly efficient, each Tablet corresponding to  $\frac{1}{2}$  cc. (8 min.) of fluid Digalen.

The ready convenience of these Tablets will appeal to every practical physician, because a vial can be carried in the emergency case or the vest pocket for instant use.

The soothing effect of Glyco-Thymoline on all mucous membranes and its stimulating and anesthetic properties are demonstrated by the promptness of its action in relieving the active symptoms of acute nasal catarrh, influenza and diseases common to the fall and winter seasons. The immediate sense of comfort manifested is gratefully received by the patient and appreciated by the physician.

A remedy which can safely be recommended for this purpose is Thiocol Roche, for, unlike many other intestinal antiseptics, it does not irritate the most delicate stomach, and being freely soluble in water, its effectiveness is certain. Unlike all other intestinal antiseptics it can safely be pushed to the point of saturating the system with guaiacol. Its exhibition is followed by increased appetite and weight. It is not habit-forming, is non-toxic and palatable.

Thiocol may be safely administered to children, as it is never followed by any untoward results.

Drop a line to The Hoffman-La Roche Chemical Works, 65 Fulton street, New York, asking them for the literature.

When two such well-known drugs as antikamnia and quinine are offered to the profession it hardly seems necessary to indicate the special classes of affections which call for their use. Antikamnia is unquestionably a perfect substitute for morphine for internal administration. It has complete control over pain, while it is free from undesirable after-effects of the alkaloid of opium. In cases of malarial fever the combination of antikamnia and quinine should be given. For all malarial conditions, quinine is the best remedy we have. But, associated with this

condition, there is always more or less pain, and antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work.

A pad entitled "Prophylactic Memoranda" for physicians' use has just come to our desk. We believe it would be appreciated by the busy physician. The foreword, which is as follows and printed on each pad, explains its use:

Time saved is money earned. The written word is more apt to be obeyed than the oral direction. Responsibility is easy to enforce when set down in black and white.

Hence the *raison d'être* for these Prophylactic memoranda. The busy physician has only to tear off from this pad a slip of directions intended to cover the disease which he has diagnosed, give it to the patient or nurse with the request that it be preserved and read carefully and followed implicitly. The name of the disease does not appear upon the slip given out by the doctor, the latter is saved the time and trouble of giving directions that are easily forgotten or misunderstood, and the patient is favorably impressed with the physician's forethought.

Additional pads will be sent free of all cost to any physician, on request.

HENRY B. PLATT,  
42 Cliff St.,  
New York City.

#### INDEX.

A .....	Typhoid
B .....	Measles
C .....	Scarlet Fever
D .....	Diphtheria
E .....	Phthisis—Incipient
F .....	Phthisis—Developed

Proposote is creosote in combination with phenylpropionic acid. The indications for its use are the same as those for creosote. Tubercular cough following pneumonia, the cough of pulmonary tuberculosis, acute and chronic bronchitis, purulent bronchitis, abscess of the lung, asthma, and bronchitis complicated with Bright's disease, are among the pathological conditions benefited by its administration.

Proposote does not cause disturbance to digestion which is the great objection to creosote. Park Davis & Co. are manufacturing this new remedy.

Tollicular Tonsillitis and chronic nasal catarrh are frequently due to the same cause. The use of Glyco-Thymoline will cure the catarrh, and its cure will be followed by the disappearance of the tonsillitis; at the same time arsenic or hypophosphites should be given.

In neurotic conditions dependent upon menstrual irregularities, Hayden's Viburnum Compound not only exerts a calmative but a corrective influence.

Samples of H. V. C. with formula and literature will be forwarded upon request to the New York Pharmaceutical Company, Bedford Springs, Bedford, Mass.

Clinical observations demonstrate Cactina Pillets to be a mild tonic stimulant to the heart, acting both on the mechanism and directly upon the heart muscle. Its continued use will promote cardiac nutrition and overcome atony of the heart muscle. And in this assistance it affords the heart and circulation there is absolutely no danger of creating untoward symptoms or annoyance to the patient.

Those unfamiliar with Hux-a-Vin, the antiperiodic and antimalaria par excellence, that is being offered by the old reliable house of The Tilden Company, will do well to write for a free sample, and especially those members of the profession that are in districts where malaria is ever present, both acute and chronic.

For Hebrew roots, although they're found

To flourish most in barren ground,

He had such plenty, as sufficed

To make some think him circumcised:

And truly so, perhaps, he was,

'Tis many pious Christian's case.

—Hudibras, 1663.





READY TO WELCOME PRESIDENT TAFT.  
California Hospital, Los Angeles, Monday, October 16, 1911.

## WOMAN SUFFRAGE IN THE CALIFORNIA HOSPITAL.

The one hundred and twenty five nurses in the California Hospital have been very much interested in the recent successful campaign in California in favor of woman's suffrage.

For several years the California Hospital management have had a daily paper prepared from the current morning papers and this is read at luncheon. The reading of the paper occupies from eight to ten minutes and it keeps the nurses abreast with the times, and at the same time gives them topics for conversation with their patients other than the usual hospital gossip.

During the recent weeks they have been wide awake to the reports of the campaign, and when the daily paper reported the encouraging news the applause showed that quite a proportion of them were in favor of woman's voting.

As everybody knows, woman's suffrage has now become a part of the Constitution of the State of California. The first opportunity to vote will be at the primary election in Los Angeles, October 31st. To be qualified for that occasion women in Los Angeles have been registering in large numbers.

The County Clerk of Los Angeles deputized Miss Mary Foy, a well-known suffragist, to register the nurses at the California Hospital. Picture No. 1 shows the first registration. The one who is registering is Miss Mildred Nichols, assistant superintendent. While the superintendent of nurses, Miss Anna A. Williamson is not an active suffragist, Miss Nichols, her assistant, was very ardent in her advocacy of the cause, and it was very fit that she should be the first one to register. We do not know, but probably she was the first woman who ever registered to vote inside the walls of a hospital. The second picture shows one of the nurses making her affidavit. While quite a proportion of the nurses did not believe in woman's suf-

frage, yet now that it has become a part of the organic law of the State, they practically all believe it is their duty to register and vote.

The campaign in California was a very exciting one and the women had a machine that surpassed that of any of the old political organizations.

### FRIAR JOHN'S NOSE.

By Francis Rabelais, M.D., 1483-1553.

Gymnast said to him: "Friar John take away the dew-drop that hangs at your nose."

"Ha, ha," said the Monk, "am I not in danger of drowning, seeing that I am in water up to my nose?"

"Why is it," said Gargantua, "that Friar John hath such a fine nose?"

"Because," replied Grandgousier, "God hath so willed it, who creates us in such form and to such end, according to His divine pleasure, even as a potter fashioneth his vessels."

"Because," said Ponocrates, "he was one of the first at the 'Fair of Noses.' He chose one of the finest and largest."

"Marry, come up," said the Monk. "According to the true monastic philosophy it is because my nurse had soft breasts; and in suckling, my nose buried itself as though in butter, and there swelled and grew like dough within the kneading-trough. Hard breasts in nurses make children snub-nosed.

—*Ad formam nasi cognoscitur ad te levavi.*"

Wild beasts and venomous serpents together cause a loss of nearly five hundred human lives every week in India. Snakes alone caused the death of twenty-two thousand persons there in 1910, notwithstanding the efforts of the authorities to exterminate these foes of humankind.





THE FIRST NURSE REGISTERING AS A VOTER.  
California Hospital, October 17, 1911.



NURSE BEING SWORN BY MISS MARY FOY, REGISTRATION DEPUTY.  
California Hospital, October 17, 1911.



## CALIFORNIA HOSPITAL ALUMNAE NOTES

The California Hospital Nurses' Alumnae Association met at the directory rooms, 1103 West Eighth street, October 30th.

There was an unusually large attendance.

Miss Kent, the president, called the meeting to order.

The minutes of the previous meeting were read. Amendments of the Constitution were presented in writing, discussed and some changes were made, and now will be sent to all members to vote on.

Misses C. Johnson, Alma Karlsson, Damaris Beeman, Verna Shaw, Clyde Sharp, M. Palm, J. J. Murray, Mrs. Z. Gray and Mrs. B. C. Miller were accepted

as members of the Nurses' Alumnae Association.

Mrs. Bartell Robb has resigned from the Association.

Mrs. Della Ensign has resigned as Secretary of the Association and left November 1st for Jerome, Arizona, where she has accepted a hospital position.

Miss A. Williamson, Superintendent of California Hospital, has spent a pleasant week in Santa Barbara.

Miss Humpheries has returned from China and Japan. She reports a delightful trip.

Miss Arnold has returned to the city after spending two months' vacation at her home in Oregon.

Mrs. M. Robertson Johnson is seriously ill of spinal meningitis at her home.

Miss M. Palm is at her home recuperating after an operation for appendicitis.

Miss Z. Gray expects soon to accompany a patient to Kansas City.

Miss E. Richards, Chief Surgical Nurse, has returned to the Hospital after a pleasant visit with her sister.

Mrs. Carson is with her sister, who is ill at the California Hospital.

Rev. Robert J. Burdette recently addressed the Los Angeles County Nurses' Association on the I. Hampton Robb Memorial Fund.

Richard Heber, a nephew of the Bishop, maintained that "no man can comfortably do without three copies of a book. One he must have for a show copy, and he will probably keep it at his country house. Another he will require for his own use and reference. He must needs have a third for his friends."

# Svapnia

**Purified Opium  
With a Fixed  
Morphine Standard**

**SVAPNIA possesses the following advantages over ordinary opium:**

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

Sold by druggists generally.

**THE CHARLES N. CRITTENTON CO.**

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*Sample and literature on application.*

# Colden's Liquid Beef Tonic

in cases of impaired appetite, of indigestion due to gastrointestinal inactivity or to a deficiency of digestive secretions—in the feebleness of old age and during convalescence—

## Is Found Dependable

by the many physicians who have directed its employment. In cases where Anæmia is a complication, Colden's Liquid Beef Tonic, with iron, is indicated and has been prescribed with similar and notable success.

Sample will be sent to physicians on request.

Sold by druggists.

THE CHARLES N. CRITTENTON CO.  
115 Fulton Street, New York

### HYDROPHOBIA ATTACKS COYOTES

PORTERVILLE, Cal., Oct. 20.—Investigation which has been made by veterinaries and physicians of this city and district has resulted in the statement that the remarkable increase of rabies is due to the fact that the disease has been communicated to the coyotes.

While this will undoubtedly result eventually in the extermination of the pests to the farmer and especially to the chicken fancier, the danger of communication of the disease to dogs is also great.

Another case of probable rabies is being treated in the local branch of the Los Angeles Pasteur Institute, a child of M. Schmit, of Terra Bella, having been bitten by a pet dog, and the animal showing undoubted signs of rabies.

At the present time the animal is being kept under close observation that the disease may be identified beyond question.—Los Angeles Daily Times.

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A grim comment on the effectiveness of prohibition in checking the consumption of alcohol is to be found in the Government report on the consumption of liquor in the United States, which during the last fiscal year surpassed all records, not only for the total amount but in *per capita* consumption. About eighteen years ago the prohibition movement began which has since prevailed over about half the area of the United States. In 1893, the consumption of liquor for each person was 16.5 gallons; last year it was 21 gallons; now it is 22.29.

**THE LATE SIR W. S. GILBERT\* AS  
A PHILOSOPHER.**

**WHAT IS MAN?**

Galatea: What is man?

Pygmalion: A being strongly framed  
To wait on woman, and protect her  
from

All ills that strength and courage can  
avert;

To work and toil for her that she may  
rest;

To weep and mourn for her, that she  
may laugh;

To fight and die for her, that she may  
live!

Galatea (after a pause): I'm glad I  
am a woman.

Pygmalion: So am I.

**(2) THE PROFESSIONAL PHILAN-  
THROPIST.**

"If you'll give me your attention, I  
will tell you what I am!

I'm a genuine philanthropist—all other  
kinds are sham.

Each little fault of temper and each so-  
cial defect

In my erring fellow-creatures I en-  
deavor to correct.

To all their little weaknesses I open  
people's eyes

And little plans to snub the self-suffic-  
ient I devise;

I love my fellow-creatures—I do all the  
good I can—

Yet everybody says I'm such a disagree-  
able man!

And I can't think why!"

**(3) DEATH.**

"Try we lifelong, we can never  
Straighten out life's tangled skein:

Why should we in vain endeavor,

Guess and guess and guess again?

Life's a pudding full of plums,

Care's a canker that benumbs,

Wherefore waste our elocution

On impossible solution?

Life's a pleasant institution:

Let us take it as it comes."

**(4) DEATH.**

"Why, sir, it is no light boon to die  
swiftly and surely at a given hour and  
in a given fashion! Truth to tell, I  
would gladly have my life; but if that  
may not be, I have the next best thing  
to it, which is death. Believe me, sir,  
my lot is not so much amiss."

**(5) OLD AGE.**

There is beauty in extreme old age—

Do you fancy you are elderly enough?

Information I'm requesting

On a subject interesting:—

Is a maiden all the better when she's  
tough?

\* \* \*

Are you old enough to marry, do you  
think?

Won't you wait till you are "eighty  
in the shade?"

There's a fascination frantic

In a ruin that's romantic:—

Do you think you are sufficiently de-  
cayed?

**(6) LIFE AND DEATH.**

"Is life a boon?

If so, it must befall

That Death, whene'er he call,

Must call too soon,

Though four-score years he give

Yet one would pray to live

Another Moon!

What kind of plaint have I,

Who perish in July?

I might have had to die

Perchance in June.

Is life a thorn?

Then count it not a whit!

Man is well done with it;

Soon as he's born.

He should all means essay

To put the plague away;

And I, war-worn,

Poor, captured fugitive,

My life most gladly give—

I might have had to live

Another morn!"



# SOUTHERN CALIFORNIA PRACTITIONER

Vol. XXVI.

LOS ANGELES, DECEMBER, 1911.

No. 12

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and DR. WILLIAM A. EDWARDS.

## THE INCONCLUSIVENESS OF THE SPUTUM CONTENT IN CASES OF PULMONARY TUBERCULOSIS.\*

BY R. L. CUNNINGHAM, M.D., LOS ANGELES, CALIFORNIA.

We all accept it as proven beyond doubt that the repeated presence of tubercle bacilli in the sputum of any patient is an infallible indication of the existence of tuberculosis in the respiratory tract of the individual. The converse of this statement, though just as clearly proven is perhaps less frequently emphasized, namely, that the failure to demonstrate the presence of tubercle bacilli in the sputum, even though the failure be repeated or constant, is not an indication that there is no tuberculosis in the respiratory tract of the suspected individual. Those who are doing much work among the tuberculous will often meet patients suffering from this infection who say that they have not tuberculosis for the reason that their sputum has been examined and reported to be free from bacilli. It is possible that physicians do not sufficiently impress upon such patients the fact that a negative report is of no value insofar as a diagnosis is concerned; certainly a single negative report is en-

tirely untrustworthy. Emerson states that bacilli have been found in some cases only after a great many daily examinations, up to twenty-five or thirty repetitions, and we are all familiar with the fact that certain types of active lesions are but seldom associated with the presence of Koch's bacilli in the sputum.

By way of illustrating the foregoing somewhat trite and well-worn statements, we have reviewed the recorded sputum findings in the first 450 tuberculous patients treated in the Barlow Sanatorium of this city. All were clinically tuberculous of the respiratory tract, though many of them never showed tubercle bacilli in their sputum. The more advanced the case clinically, the more constantly were bacilli found upon examination.

The 450 cases were classified clinically as follows:

Stage I. (Turban) . . . .	48—10.66%
Stage II. (Turban) . . . .	147—32.66%
Stage III. (Turban) . . . .	255—56.66%
Total . . . . .	450

\*Read before the Los Angeles County Medical Association, Nov. 3, 1911.

Stage 1. Of the 48 patients falling into this stage of the disease, there were 10 (20.83%) for whom but one examination of the sputum was recorded, either because of difficulty in obtaining a specimen or because the patient was but a short time under observation. Of this 10, the bacilli were shown to be present in six and were not found in four cases. There were 19 (39.58%) who had two or more sputum examinations with constant result, positive in six and negative in 13. In 11 individuals the results of several examinations were variable, being at one time positive and at another time negative. In eight patients no sputum could be obtained for examination at any time during Sanatorium residence. Summing up the group, 23 of the 48, or 47.91%, showed tubercle bacilli in the sputum at some time while under observation, and 17 (or 33.12%) failed to show bacilli at any time during their residence in the Sanatorium, the remaining eight patients (16.66%) being without expectoration, and so without examination of sputum. Thus we find that in this early stage of the disease of those with bacteriologic examination almost as many patients gave a negative sputum as gave positive findings.

Stage II. There were 147 patients in this group. Thirty-four had but one examination of sputum (23.22%), of which number 27 specimens were shown to contain bacilli, while seven failed to show them. Sixty-seven individuals (44.87%) had more than one examination, results constant, positive in 48 and negative in 19. Forty-two cases showed sometimes positive and sometimes negative, and in four cases no sputum was obtained for examination. In this group the total is 117 (80.50%) with bacilli at some time and 26 (17.68%) with bacilli at no time when examined.

Stage III. This group embraces 255 patients, or 56.66% of the entire 450.

Sixty-nine (27.45%) had but one examination of sputum, 59 being positive and 10 negative. One hundred and fourteen had several examinations with constant result, 108 positive and six negative. In 68 individuals the sputum findings varied between positive and negative and in four cases no sputum was obtained for examination. Of the whole group in this stage, 235 (92.17%) showed tubercle bacilli present at some time, while 16 failed to show bacilli at any time, 6.27% of these moderately or far advanced cases showing no tubercle bacilli in their sputum.

From the above brief discussion it will appear that the largest proportion of failures to demonstrate the presence of bacilli in the sputum occurred in the early cases, being 33.12% of the group, while the proportion falls to 17.68% in the group comprising Stage II, and to 6.27% in the third stage. It is further worthy of note that even in Stage III, upon repeated examination, it was impossible to demonstrate the presence of tubercle bacilli in six cases, that being 2.35% of the cases in that group, and that where but one examination was made failure was met in 10 cases, or in 3.92% of the group. When we combine all groups, we find that the total number of sputum examinations made upon the 450 cases was 1333, of which number 977 (73.29%) specimens contained acid-fast bacilli, and 356 (26.71%) specimens were not shown to contain such micro-organisms.

Is it possible to prophesy from the clinical condition as to the content of the sputum? We think it is not, though we feel that the probabilities may be stated roughly as follows:

One will probably not be able to demonstrate tubercle bacilli

1. In early cases of pulmonary tuberculosis, with little sputum.
2. In the chronic fibroid cases, even with abundant sputum of the glairy,

mucoid type. These are the cases formerly called "closed."

3. In certain cases with cavities which are well walled-in.

4. In consolidation (caseous pneumonia) where there is no softening as yet.

5. In children under the age of five years, who do not expectorate their sputum.

6. In advanced ulcerative cases who do not expectorate.

On the other hand, one will probably be able to demonstrate tubercle bacilli

1. In early cases with haemoptysis, even where there is no lesion discoverable by physical examination of the chest.

2. In any stage of active ulcerative tuberculosis with sputum.

3. In consolidation (caseous pneumonia) when softening has begun.

4. In ulcerative laryngeal tuberculosis.

5. In chronic ulcerative tuberculosis, where the cavity has a ragged wall rather than a well-defined scar-tissue lining.

There is no characteristic sputum in pulmonary tuberculosis. The nearest approach to such is the so-called numular sputum of chronic ulcerative tuberculosis; purulent secretion containing small, isolated, flattened, grayish or greenish disc-shaped masses, airless, caseous material, which sink in water and which are often almost pure cultures of Koch's bacillus. In the earlier stages of the disease the variability of the sputum is its only striking characteristic. The least suggestive specimen may prove to be rich in bacilli, while the most suspicious specimen may fail to show their presence.

We believe that the factor of most weight in the examination of the sputum is the collection of the material,

and we shall state in brief the technique which we have employed. We prefer the first sputum which is coughed from the bronchi in the morning, best a single expectoration. This is collected in a wooden box which has a screw top and its whole interior painted with a black asphaltum, the paint to give a water-proof material which is inflammable and which at the same time supplies a dark background and greatly facilitates the selection of the proper particles for smears. We then make two or three smears for each specimen, selecting three particles from different portions of the specimen for each smear. In large masses of purulent material we select the comparatively dry central part of the mass for staining. We then prepare our slides and stain the preparation in the usual way, estimating the number of micro-organisms by the Gaffky scale, or in actual numbers. The box in which the specimen was collected is then closed again by its screw top and the whole thing is burned in the incinerator, doing away with the filthy practice of such sterilizing of glass bottles as is necessary by the old methods where a single receptacle was used over and over again.

It is highly desirable to secure every diagnosis by that laboratory method best applicable to the problem, but it is also absolutely necessary that the clinician should assume his just share in the making of a diagnosis. Most laboratory aids are such only when they are positive, and a negative report calls for more careful clinical study of the case and repetition of the special examination. With the use of the newer methods of digesting and concentrating the sputum, we may hope to meet with fewer failures in the demonstration of tubercle bacilli in the sputum of patients who are clinically undoubtedly tuberculous.

Security Building.



## THE DIPHTHERIA BACILLUS IN REGARD TO ITS RELATION TO THE PUBLIC HEALTH.\*

BY A. HALDEN JONES, M.D., LOS ANGELES, CALIFORNIA.

The statement has been made as a reproach to public health work, that scarlet fever and diphtheria should not be as prevalent as they are. Perhaps they should not be, but that statement carries much more weight in regard to diphtheria than it does in regard to scarlet fever. We know the definite causative factor in diphtheria, the Klebs-Loeffler bacillus, but the causative factor in scarlet fever is still unknown. Then, too, the mild cases of scarlet fever that do not require the services of a physician, are more of a menace in the spread of the disease. Then there is the antitoxin which cuts short the course of the disease in diphtheria and limits the time of its contagiousness; and again, it may be used to immunize those exposed to it, while in scarlet fever we have no means of doing this. As a result, we have had a marked reduction in the mortality. In Philadelphia in 1898 the mortality was 28.18 per cent., in 1900 it was 14.18 per cent., and in 1909 it was 12 per cent. In Chicago, more or less demoralized until recently in regard to the control of diphtheria, the mortality some years ago was over 30 per cent. of the cases reported. The mortality here in Los Angeles last year was 6 per cent., i. e., 18 deaths in 311 cases, whereas in 1899 there were 60 deaths in a population of about 60,000. Of course 1899 was in the pre-antitoxin days.

However, when one considers the difficulties under which the public health work in some of the contagious diseases is done, one wonders that conditions are as good as they are. Diphtheria is a disease that tends to become epidemic if given any show at all. It does so

every few years, perhaps because of a new crop of susceptible individuals. Among the poor, where there is closer contact, overcrowding and poor hygiene, this tendency is greater, and it is useless to expect any co-operation there as it would be for our Health Commissioner, Dr. Powers, to expect it in his dog-muzzling ordinance. Then, again, we have compulsory education, and the state that compels children to be together in large numbers assumes authority to protect those children against contagion, although the authorities here may take away that protection, and the results, if they do, will, in a few years, be deplorable. If we look back a few years, those familiar with conditions before the introduction of antitoxin, e. g., Dr. Hitchcock, Dr. Cole, perhaps even Dr. Barlow, will remember how perfectly powerless they were in the presence of this disease. They could only sit by and watch. Their only means of relief were so ineffectual that they were in the position of a man armed with a pocket knife among a bunch of men armed with revolvers. They could do a tracheotomy, which sometimes did as much harm as good, so that they had to sit by and see the throat fill with the membrane and the nose fill with it till it protruded from the nares, and the patient died, and in about as large a percentage of those who didn't die they might better have died, because of the cardiac degeneration or the paralysis which might result in loss of hearing or, affecting the eyes, result in squint or ptosis. In fact, there were many complications affecting those who survived. It is a most virulent toxin. A bouillon culture of 48 hours and fil-

\*Read before the Los Angeles County Medical Society Meeting of Nov. 3, 1911.

tered is so virulent that 1-10,000 part of a drop has been known to kill guinea pig after guinea pig.

In 1891 and 1892 von Behring published articles in which he demonstrated that animals could be immunized against the diphtheria toxin and in 1893 he showed that the serum of such animals could immunize other animals against the disease. In the latter part of that year it began to be used and in 1895 it was in quite general use. It was brought to America about that time. The first was used by the New York City Board of Health, and it was put on the market in 1896. In that year it was first used in Los Angeles. Dr. Hitchcock was on the Board of Health at that time. He tells me that it was at the very end of that year that he gave it first. In all he has had 134 cases and two deaths since using antitoxin. The percentage of cases has run down all over the world since using antitoxin, but all cases do not get antitoxin. The delay of a day or two may mean the difference between life and death.

The relation of the diphtheria bacillus to the public health work involves four points. First is the better recognition and isolation of the early cases of diphtheria. As regards the public health officer, that simply requires better systematization, which is not much progress. For the laboratory it requires better co-operation on the part of the physician with the health officer. It is strange that facts that are every-day knowledge with the laboratory man are not appreciated by the general profession. If all cases were reported early, doubtful as well as those undoubtedly diphtheria it would be a great advantage. Statistics show that about 40 per cent. of those that the doctors report as clinically positive are negative and of those clinically not positive about 15 to 20 per cent. do show the

diphtheria bacillus, a bacillus of such virulence that it will kill a guinea pig when  $\frac{1}{2}$  cc. of bouillon culture is injected. As regards early recognition and complete isolation, the physicians are not perfect in their co-operation. Second, the control by public health officers of the causes of epidemics, such as the milk supply and some food supplies. Third, there is the criticism of the laboratory for giving negative reports where it is a clear case of diphtheria, and the laboratory report is afterward positive. There are several reasons for that. Of the factors involved there is, first, the throat itself. There may be a predominating pyogenic infection. Then, there is the man who makes the swab, and there is the media, and the one who looks through the microscope. The pyogenic infection may be so great that it grows over and covers the Klebs-Loeffer bacilli. There are numerous other factors which are never thought of, e. g., the patient may have just taken an antiseptic gargle. Fourth, the laboratory should be able to tell whether a certain culture is virulent or not; not that it is morphologically, but that it is pathologically diphtheria.

I have been so interested in this question that I recently wrote Dr. B. L. Arms, of the Pathological Laboratory of Boston, and asked him if there was any method other than the inoculation of the guinea pig (referring, of course, to the A and C types, the virulent types). He wrote me that they had taken cultures from about 4,000 throats in the Brighton school district and that about four per cent. were morphologically diphtheria, but only six of those cases developed clinical diphtheria. The others needlessly lost time from school, and it was concluded that it was useless to attempt to exclude the diphtheria carriers. When it was first discovered that

there were certain diphtheria carriers, it was believed to be one of the great discoveries of the age, and that by the isolation of these carriers diphtheria could be stamped out. But this has not proved to be true. So the situation is this: Here are two throats containing diphtheria bacilli, and one ought to be quarantined and one need not be, but how can you determine which? Parkes stated that about one per cent. of the people are diphtheria carriers. At first various means were employed to rid these throats of the diphtheria bacilli, giving them various antiseptic mouth washes, etc. Then Wassermann experimented with a method where in the antitoxin was evaporated and made into tablet triturates. It was stated that this method gave good results, but evidently it must finally have proved useless, as it was not followed up even in Wassermann's clinic. At various times bacilli and cocci have been reported antagonistic to the diphtheria bacillus. The colon bacillus was at one time used and a culture of staphylococcus pyogenes aureus was used, but it is hard to see why they should be of any value. Perhaps no laboratory worker ever saw a pure culture of the diphtheria bacillus. It is always a mixed infection. Dr. Arms says that "the only method of demonstrating the virulence of the Klebs-Loeffler bacillus is by inoculation," and he believes that "the animal itself will always be the only test of virulence."

It seems to me that if you grant the postulate that the virulent type produce a toxin and the non-virulent type do not produce a toxin, there is every hope of discovering a color test if a culture can be made that will produce this toxin on a protein-free medium. The culture from the throat could be grown on water-clear media and then the color test for the toxin could be

done. It is one of the accidents of morphology that only substances with the benzene derivative have any action on the motor cells, and of course the diphtheria toxin has a pronounced effect on the motor nerves. All of the enzymes and toxins that are known do have benzene derivatives, and they are the ones that give the chromes. Some of the enzymes and one or two of the toxins have been known to give a color reaction, e. g., the indo-reaction, and there is every reason to look forward to a specific color reaction in the near future.

#### DISCUSSION.

Health Commissioner L. M. Powers: There was one statement the doctor made that, I think, was incorrect. The first antitoxin used here was on Jan. 17th, 1895. It was a preparation of antitoxin sent here from New York. I used this antitoxin over on the East Side. A thing that interests us is the quarantine of diphtheria carriers. When a person is found to have diphtheria bacilli in the throat it is very difficult to determine whether they are virulent or not. We do quarantine them, but the question is raised whether it is a case of diphtheria or not. According to the state law, unless you have a case that is clinically diphtheria it is not diphtheria. Of course, we may suspect it. At Santa Barbara that question came up and we called on the attorney for the State Board of Health for a decision, and he said he could not decide the point without the testimony of physicians, and that is not yet decided.

Dr. C. Levin: That is a question that may be very interesting. I remember a case in point in my practice here in Los Angeles two years ago, right after I returned from Europe. I could not attend to the winding up of the case and turned it over to another physician, as I was leaving the city. The case showed all the symp-



toms of diphtheria. I diagnosed diphtheria and ordered antitoxin injection, but the physician who took charge of the case met with opposition, first on the part of a Christian Scientist and then an uncle and other relatives objected. A swab was taken and sent to the Board of Health. While I was at the depot the physician in charge came to me and complained. I replied that I was positive it was diphtheria, and in that positive diagnosis I was fully justified, I believe, although the diagnosis could not withstand the onslaught of the Christian Scientist. Then the report came from the Board of Health, "doubtful," but the child died in the meantime. Then a second child was taken sick, and they wired me at Salt Lake City: "What shall we do?" I replied: "Inject antitoxin." A swab had been sent the Board of Health and the report came back, "negative." That shows the shortcomings in our diagnosis of diphtheria. We have young gentlemen who are unable to make a defensible diagnosis of diphtheria and they are left in suspense. The physician has to make the diagnosis and he cannot, and if he does one way or the other, he is attacked for it. I call your attention to this for only then will you find some means of helping these young physicians in their daily practice. I think whoever is in charge of the Board of Health ought to be able to decide it.

Dr. Baneroff: The reason I desired this subject to be presented to you tonight was that many times in cases of diphtheria the germs are not found, and sometimes when they do show, the diagnosis is doubtful. In tuberculosis, also, the clinician may say that a case is not one of tuberculosis because the germs do not show, when it really is tuberculosis.

Dr. Stanley Black: I am very glad Dr. Cunningham did bring out that

point, because laboratory workers everywhere have had the experience of examining a specimen, not finding the bacilli, and then having the doctor tell the patient he has no tuberculosis. It is unfortunate that the medical profession is not educated up to the point where it is recognized that the bacillus is there if it is looked for long enough. I have been many years trying to combat that one idea, that there is no tuberculosis case in which the bacillus is not present. If Dr. Cunningham had said no more than that, his paper would have been well worth while. You know how difficult it would be to find a needle or a bunch of needles in a haystack. The tubercle bacillus is often just as hard to find. I have made as many as twenty examinations before I found the bacillus. It takes a long time and a great deal of energy. In order to examine for the bacillus we can only take a very small portion of the sputum, and if only a few examinations are made, what is to be expected? We take 1-10000 part of that small amount of sputum and then expect to find the bacillus. At one time I estimated the number of fields in a cover glass and allowing one second for the examination of each field it would require three hours to examine that small slide. So you see how small an amount we examine when we hunt for the tubercle bacillus. That accounts for many of the failures. In the last few years methods have been tried of digesting the bacilli and then sedimenting it. The Chicago Board of Health found that the number of cases in which they found the bacilli was doubled by this method.

As to diphtheria, there is nothing more important than for the profession at large to realize the importance of quarantine. From an experience of six years in the health office in Pasadena, I know they do not realize it. Physi-  
cians

ans are considered hard-hearted, but as a matter of fact, this is not true. Repeatedly physicians have said, "Oh, there's nothing the matter with that child. Why not let him go?" The physician's sympathy is on the side of the family. The treatment of every individual in the family must be the same; breadwinner or not, he must stay in quarantine. Of course, I realize that Dr. Powers has a harder time than I have, for I have a better educated class to deal with, but I have been fighting for several years and Dr. Powers has been fighting longer than I have, but I believe I have accomplished more. A year ago we threshed this out at a meeting of public health officers. The larger cities wanted quarantine of the family except the bread winner, who might come and go. I fought against that and carried the case as far as scarlet fever was concerned, but in cases of diphtheria they decided that the breadwinner should come and go, whether he was a carrier or not. I said that that would not obtain where I had power to prevent it. I have insisted that the breadwinner must either stay at home or he must leave the lot, provided he has a negative culture, as long as the card remains up. That is the practical side of it. How much diphtheria can be prevented in that way? In this year there has been but one case of diphtheria that has arisen from another case within the limits of Pasadena. Those originating in Pasadena have been contracted from cases out of town. A year ago two cases in one room came down with diphtheria. I immediately went to the school and found three others who had the bacilli. I quarantined them and two of these subsequently had true diphtheria. The other never was sick, but was kept in quarantine until negative cultures obtained. By strict quarantine I believe we can prevent diphtheria and scarlet

fever. In reference to the failure to find the bacillus, I have had one experience, the patient being an interne in a Chicago hospital, who had been taking care of some patients. He was very sick, there was a membrane, but I failed to find the bacilli. Afterward, when a post-nasal swab was used, the bacilli were found. We sometimes find them in the nose when we do not find them in the pharynx, so when we fail to find them in the pharynx a post-nasal culture should be made. The State Board of Health has recognized that fact. The fact that they are missed is largely due to carelessness in taking the swab. When the physician's culture is negative, I always take a second myself and go up into the post-nasal pharynx. As to the difficulty in getting rid of the bacilli, Dr. Jones spoke of the staphylococcus aureus. In the Journal of the American Medical Association that was first recommended about two years ago, by some physician in Manila. He found that if he got a profuse culture of the staphylococcus aureus that the diphtheria bacillus did not persist. I have not had occasion to use that method. The only method I have used is the sunning of the throat, opening the mouth wide and allowing the sun to shine in the throat, using no antiseptic washes, for peroxide and other antiseptics only irritate the throat and allow the bacilli to grow better. I place more reliance on the sunning of the throat than on anything else.

Dr. Jones, in closing: If the methods Dr. Black used in Pasadena were carried out all over the country, diphtheria would be banished as a disease. I suppose there is no other city in the country of its size of which it may be said that but one case originated from another case in the city in a year. In Chicago they will quarantine half a house and let the breadwinner live in the other half,

and they have thousands of cases they do not control at all. Dr. Black spoke of the occurrence of the bacilli in the nose. One case has been reported where an individual carried the bacillus in connection with a chronic rhinitis. The individual was a teacher. In that school there were occasional outbreaks of diphtheria, but the cause of the trouble was never found until one of the teachers went to another town.

An outbreak of diphtheria there aroused the suspicions of the physician and when they were cleared up that teacher never had another outbreak in her school. As to the tubercle bacillus, in the earliest cases, until the tubercles have broken down, you cannot expect to find the bacilli in the sputum. The bacilli will not be found until you have actual long destruction.

### EXTRA UTERINE PREGNANCY.\*

BY W. A. HOLT, M.D., CHIEF SURGEON, OLD DOMINION COPPER CO., GLOBE, ARIZ.

The two primary varieties of extra-uterine pregnancy, depending on the original point of attachment of a fertilized ovum, are, Tubal, including interstitial, and Ovarian. But the primary forms may assume, through rupture or further development, secondary forms; the interstitial may terminate as uterine; the other forms of tubal may become intra-ligamentous, tubo-ovarian and abdominal, and the ovarian may terminate as abdominal.

Primary ovarian pregnancy is one of the rarest conditions in gynaecology; Williams in a thorough search of the literature for the past 100 years has been able to collect only five cases of positive ovarian pregnancy. In interstitial pregnancy the impregnated ovum develops in the portion of the tube which lies within the uterine wall, and is the rarest variety of tubal gestation. Martin reports one case in seventy-seven of extra-uterine pregnancy; Kelly, in his book, states that he has never observed a case in 139 cases; Lawson Tait cites one case in 100 cases of extra-uterine pregnancy.

The principal primary, and therefore by far the most frequent variety is tubal, so much so that it is practically synonymous with extra-uterine pregnancy. The various forms of tubal pregnancy, designated according to the portion of the tube involved, are: 1. Interstitial. 2.

Isthmic. 3. Ampullar. 4. Infundibular. Isthmic and ampullar are the most common.

ETIOLOGY: Formerly it was believed that the fecundation of the ovum normally took place in the uterine cavity, and that when this occurred in the tube it was accidental, and tubal gestation was the result. It was also maintained that the direction of the movement of the ciliated epithelia of the uterine mucosa was upward, while the current produced by the ciliated epithelia of the mucous membrane of the tubes was downward, the former assisting in the movement of the spermatozoa toward the ovum, and the latter aiding in the progress of the ovum downward. More recent observations have shown that the currents of the cilia, both of the tubal and uterine mucosa, are from above downwards, that their function is to assist the ovum in its progress downward into the uterine cavity, and that the spermatozoa traverse the genital passages by their own motility. Recent experiments on animals have shown that fertilization of the ovum takes place in the tube, and observations on human females would tend to show that the same obtains in them. Extra-Uterine pregnancy results therefore when the transit into the uterine cavity of a fertilized ovum is interfered with, either as the result of

\*Read before the Gila County Medical Society, Sept. 11, 1911.



obstructive changes within or external to the tube or to anatomical changes within or external to the tube or to anatomical anomalies in the tube. In its passage through the tube the fertilized ovum receives its nourishment from the tubal mucosa through the medium of a layer of very delicate villi, known as the primitive chorion, which grows from the ovum and gives it a shaggy appearance. Since in a number of cases of extra uterine pregnancy the tube was found to be absolutely normal, and there was no evidence of ovarian or uterine disease, it is very probable that one of the causes may be found in a peculiar condition of the primitive Chorion, the nature of which is as yet unknown. In normal pregnancy a decidua is invariably formed from the uterine mucosa, while according to many investigators, decidual formation from the tubal mucosa is entirely or nearly absent in tubal pregnancy. Webster maintains that when decidualation does occur in the tube, tubal pregnancy is the result. That Webster's theory may be plausible, the experiments by other observers on animals would tend to prove. At the same time the weight of evidence of histologists is against any decidual development from the tubal mucosa in tubal pregnancy. Among some of the causes suggested by various writers are the following: Polypi and diverticuli of the tube; catarrhal or purulent salpingitis, especially of gonorrhoeal origin; stricture atresia, or torsion of the tube; peritoneal bands and adhesions constricting the tube; tumors and inflammatory exudates pressing on the tube, anomalies or infantile development of the tube. In my own experience I have noted two cases of tubal pregnancy following dilation and curettage. Ladinsky of New York makes particular mention of stricture of the tube as a cause of extra-uterine pregnancy because it proves conclusively the external migration of the fertilized ovum, a theory first advocated by Kussmaul, and now generally accepted. Numerous specimens have

been observed of tubal pregnancy where a stricture of the uterine end of the tube would positively preclude the passage of the spermatazoa through the tube, and the corpus luteum of pregnancy in the ovary on that side would tend to confirm the theory of external migration. Henle explains this occurrence by the hypothesis, that the ova are carried along in currents in Douglas cul-de-sac, generated by the ciliated epithelia which cover the fimbriae of the tubes; this action has been demonstrated in animals by Pinner, Jani and Lode. This observation has a further bearing on the feasibility of conservative surgery on the adnexa, when it is at times found necessary to leave the ovary on one side and the tube on the other in order to avoid unsexing the woman.

#### HISTOLOGY.

Coincident with the discharge of an ovum from the Graafian follicle the uterine mucosa undergoes hypertrophy in anticipation of the implantation in the uterine cavity of the fertilized ovum. When the ovum fails to be fecundated, menstruation occurs. If the ovum becomes fertilized the uterine mucosa is converted into a decidua regardless of whether the ovum develops in the uterine cavity or in the tube. When the ovum develops in the uterine cavity the decidua undergoes further changes, until it comprises three parts, namely, decidua vera, decidua serotina, and decidua reflexa. If the fertilized ovum is arrested in the tube, the uterine decidua sooner or later undergoes retrograde changes, with its consequent discharge either in minute shreds with the bleeding from the uterus, or in the form of a cast of the uterine cavity. Contrary to previous teachings, uterine casts are discharged but infrequently in tubal pregnancy; Kelly observed three decidual casts in 139 cases; Ladinsky reports two in 110 operated cases; I have never observed a cast in eight cases under my observation. In the two cases reported by Ladinsky operation was done before

any bleeding occurred from the uterus, and in both bleeding started immediately after operation and continued until the casts were expelled within forty-eight hours. He further says that we may find in these two cases proof of the explanation for the uterine bleeding which occurs with tubal pregnancy, and also the reason why decidual casts are comparatively so rarely met with.

It appears to me that the Uterine hemorrhage which is so constant a symptom of this disease, and which invariably ceases after the pregnancy has been interrupted, is the result of an early separation and degenerating of the uterine mucosa decidua, in consequence of the failure on the part of the fertilized ovum to become attached in the uterine cavity. When for some reason this disintegration of the decidua does not take place, there is an absence of bleeding before the gravid tube is removed, and the decidua is subsequently expelled in the form of a cast of the uterus. The development of the impregnated ovum in the tube is analogous to that in the uterus, but differs in certain important particulars; as pointed out above, in tubal pregnancy there is very little, if any, decidual formation produced from the tubal mucous membrane. As a consequence, the placenta in tubal gestation originates from the foetus, in contradistinction to the Placenta in normal pregnancy which is composed of two sections, one derived from maternal and the other from foetal structures. In tubal pregnancy, therefore, the chorionic villi attach themselves directly to the tubal mucosa, and the result of the absence of the maternal decidua, which in uterine pregnancy acts as a protecting wall between the growing ovum and underlying tissue, penetrate the muscular and fibrous tissues until they lie immediately below the peritoneal coat. While the walls of the tube, under the influence of pregnancy become markedly distended and increased in vascularity the muscular coats show comparatively little tendency

to hypertrophy, as is the case in the uterine wall in normal pregnancy. In this hypertrophy of the vessels and accompanying thinning walls of the tube, and the burrowing tendency of the chorionic villi may be found the cause for the tendency to hemorrhage into the gra vid sac, and for the rupture of the tube wall.

#### COURSE AND TERMINATION OF TUBAL PREGNANCY.

With the beginning of pregnancy that portion of the tube in which the fertilized ovum has engrafted itself becomes swollen and vascular, while at the same time the wall of the tube becomes thinned and distended. Frequently, and especially when the site of the pregnancy is near the fimbriated extremity, the ostium abdominale of the tube becomes occluded. When it remains patent the pregnancy is more apt to terminate in tubal abortion or tubal mole, although a patent and widely distended ostium does not, as a rule, prevent rupture of the tube, and a closed ostium abdominale does not preclude the possibility of a tubal mole. In tubal abortion or mole, the same changes take place in the gravid sac as occur in uterine abortion or mole. Hemorrhage takes place between the ovum and the tube wall, causing a partial or complete separation of the ovum, with bleeding, which may be moderate or profuse, into the abdominal cavity, through ostium abdominale. When the separation is complete the extravasated blood finally extrudes the ovum into the peritoneal cavity through the ostium abdominale and the hemorrhage may cease, thus producing a complete tubal abortion. When the sac is only partially separated the fetus may or may not be destroyed, while the hemorrhage into the peritoneal cavity through ostium abdominale may continue for a longer or shorter interval. This constitutes an incomplete tubal abortion, and one of the most dangerous varieties, owing to the fact that the intra-abdominal

hemorrhage, which begins and continues slowly and insiduously, may suddenly become profuse and find the patient in no condition to react to stimulation. When the hemorrhage between the ovum and the tube wall is moderate, the gravid sac may become infiltrated with the blood and be converted into a mole, which will remain in the tube if the ostium is closed, or be expelled into the peritoneal cavity. If separation takes place in the interstitial variety, the ovum may, in some instances, be projected into the uterine cavity and, if viable, terminate in a uterine pregnancy, or, if otherwise, in a uterine abortion.

#### STATISTICS OF TUBAL ABORTION.

Robb of Cleveland gives figures ranging from 37 to 78 per cent. for abortion and from 15 to 37 per cent. for rupture. Most observers give figures twice as large for rupture.

When tubal pregnancy does not terminate in an abortion, it almost invariably culminates in a rupture of the tube. This may occur as early as the sixth week or may be postponed until the fourth month. Rupture is usually followed by the escape of the ovum into the peritoneal cavity or by its extrusion between the layers of the broad ligament, but this may not take place until one or more ruptures have occurred. When rupture is due to overdistension and attenuation of the walls of the tube produced by growing ovum or by hemorrhage into the tube the rent may be small or extend the entire length of the tube.

One or even more ruptures of the tube may occur and cause no interruption of the pregnancy; in that case the bleeding is slight and the blood clot seals the perforation in the tube wall.

The termination of the various forms of ruptured tubal pregnancy is not by any means uniform and their multitu-

dinous sequelae lend additional interest to this serious and at times very formidable disease. When the rupture takes place in any portion of the tube covered by peritoneum, there will be more or less hemorrhage into the peritoneal cavity, the fetus may die or it may continue to grow, attached partially to the tube and partly to the abdominal viscera and continue as an abdominal variety. As the placenta in tubal pregnancy has no fixed point of insertion, but may develop at any point and in any direction of the tube the fate of the fetus and the amount of hemorrhage will depend in a measure on whether the tear occurs through the placental site or not. When the amount of blood lost with the extrusion into the peritoneal cavity of a dead ovum is not very profuse, it becomes walled off by adhesions from the rest of the cavity and forms a hematocele which may be either absorbed or go on to suppuration. The ovum in tubal pregnancy is subject to the same diseases as in uterine pregnancy, as for instance hydatidiform mole, hydramnios and deciduoma malignum; and likewise there may be multiple tubal pregnancies, of which there are a number of recorded cases. A number of men in the literature have had cases of successive tubal pregnancies. The combination of intra and extra-uterine pregnancy seems to be very rare although I found one reported by Dr. Hymans of Mt. Sinai Hospital, New York.

#### SYMPTOMATOLOGY AND DIAGNOSIS.

It seems to me that the signs and symptoms of tubal pregnancy are sufficiently distinct and are grouped so that the diagnosis can be made with a degree of certainty fully as great as in other diseases of the pelvic organs. The presence of all the characteristic signs and symptoms will render the



diagnosis almost absolute; at times even, if only one or two can be elicited, in the absence of signs pointing to other pelvic lesions, a presumptive diagnosis can be made. In taking up for consideration the diagnosis and symptoms of tubal pregnancy, we must differentiate two distinct classes, the ruptured and the unruptured. The diagnostic signs in the unruptured type are as follows: 1st. Cessation of menstruation is invariably present, although a positive history to that effect cannot always be obtained; the patients have either carelessly overlooked the fact or purposely denied it in order to mislead the physician. If tubal pregnancy occurs during lactation, of which I have seen one case, there are, of course, no data to base any calculation on.

2nd. The patient often feels that she is pregnant and may have the characteristic subjective signs peculiar to some individuals; occasionally the patient may suspect that this pregnancy differs in some manner from her other pregnancies.

3rd. Pain is a constant symptom of tubal pregnancy and is due to the distension of the tube by the constantly growing ovum. It is sharp, lancinating and paroxysmal in character and increases in severity as pregnancy advances; the patient will not only refer the pain to the affected side, but will distinctly refer it to the ovarium region. The localization of the pain is analogous to McBurney's point in appendicitis with the difference that while in the latter condition the painful spot is elicited on pressure, in the former it is a subjective sign. The pain does not radiate in the pelvis nor is it reflected to other parts of the abdomen, as is the case in appendicitis or disease of the adnexa, nor is it influenced by position or exertion. In early pregnan-

cy pressure on the abdominal wall will not elicit pain.

4th. Bleeding from the uterus. As a rule, bleeding from the uterus begins about the sixth week of tubal pregnancy; in some cases it may not occur until somewhat later, and in very rare instances not till the third or fourth month.

The bleeding is usually very scanty in amount, is never profuse and, in some respects, is characteristic of this condition. The blood is rather dark and grumous and does not possess the peculiar odor of the menstrual discharge; it is not as shreddy and clotty as is the discharge in incomplete abortion. The decidua is rarely in the form of a cast.

5th. The uterus is invariably enlarged in tubal pregnancy.

6th. The formation of a mass on one side, which increases in size as pregnancy advances, is one of the distinctive signs of tubal pregnancy and the enlargement of that portion of the tube where the ovum happens to have developed, offers to the palpating finger the feel of an elastic, sensitive, tender and well defined fusiform tumor, which is freely movable, unless there were previous adhesions about the tube. The physical signs of a tube distended by a gravid sac are sufficiently characteristic to enable one, as a rule, to readily exclude hydrosalpinx, pyosalpinx, ovarian and parovarian cysts, retroverted pregnant uterus, pelvic abscess, and uterine tumors. Two negative signs of great importance in determining the presence of tubal pregnancy, either of which will occasionally prove the deciding factor in establishing a diagnosis, are, the exclusion of uterine pregnancy and the absence of elevation of temperature. Unruptured tubal pregnancy as such does not cause a rise of temperature, and in that respect is identical with uterine pregnancy. Of

course, after rupture has taken place we may have a rise of temperature. The blood extravasated into the peritoneal cavity, the result of tubal abortion or rupture, whether it is free, circumscribed or encapsulated, may form a culture medium for organisms and be the cause of elevation of temperature occasionally found in ruptured cases. A rise of temperature in unruptured tubal pregnancy is usually due to co-existing inflammatory processes.

#### **SYMPTOMS AND DIAGNOSIS IN RUPTURED TUBAL PREGNANCY.**

There are additional local and constitutional signs and symptoms in ruptured tubal pregnancy when seen during, or immediately after, the rupture, that are pathognomonic of the condition. When a rupture is slight and only small vessels are involved, the amount of bleeding into the peritoneal cavity may produce no further symptoms than a sudden severe lancinating pain, followed by general abdominal pains, nausea, vomiting and prostration. Likewise, when the rupture takes place between the separated layers of the mesosalpinx, hemorrhage is usually not very profuse and produces very little and very indefinite signs of internal bleeding. When, on the contrary, the hemorrhage between the layers of the broad ligament or into the peritoneal cavity is profuse, the signs of internal hemorrhage are present to a greater or lesser degree, and consist of restlessness, shock, collapse and even unconsciousness. There are extreme anaemia and blanching of the mucous membranes, thirst, air hunger, and shallow and rapid respiration, feeble pulse and subnormal temperature. Locally the abdomen may be distended and tender, and palpation may elicit a fluid wave. Bimanual examination will, as a rule, reveal a soft boggy tumor to one side or the other, which appears

to the examining finger to be undefined in contour and may change its shape and position under manipulation. When the gravid contents have become entirely detached and float in the peritoneal cavity, no localized tumor may be palpable and the only proof of the rupture will be the evidence of free fluid in the pelvic cavity. Successive ruptures may occur at longer or shorter intervals, to be finally followed by any of the above sequelae. Should the patient survive the immediate effect of the hemorrhage without operative interference, the case may terminate as an hematocele or pelvic abscess, requiring subsequent attention. Shock and collapse, due to internal hemorrhage from ruptured tubal pregnancy, may simulate lesions of other abdominal viscera, as, for instance, perforation of stomach, of duodenum, of small intestine, or of appendix; rupture of pyosalpinx, twisted pedicle of ovarian cyst; torsion of the tube; acute intestinal obstruction, renal and biliary colic.

#### **DIFFERENTIAL DIAGNOSIS OF INTERSTITIAL PREGNANCY.**

The differential diagnosis between interstitial pregnancy and pregnancy of the rudimentary horn is exceedingly difficult. The chief point of difference is that in interstitial pregnancy the sac communicates by an orifice with the uterine cavity, or is separated from it by a septum, while in pregnancy of the rudimentary horn the uterine cavity is divided above by a septum into two compartments, and forms one canal below at the cervical portion. Another point of distinction is that in interstitial pregnancy the round ligament lies to the inner side of the sac, whereas in pregnancy of the rudimentary horn the round ligament is found to the outer side of the sac.

Interstitial pregnancy differs in its course and termination from tubal pregnancy. If interstitial pregnancy does not terminate in uterine pregnancy, rupture into the peritoneal cavity generally occurs from the second to the fourth month, and may be delayed much later, occasionally until the ninth month. Because of the thicker wall and the greater vascularity of the sac, intra-peritoneal rupture is usually more rapidly fatal in this variety than in ordinary tubal rupture. In 20 cases of primary ruptured interstitial pregnancy, collected by Rosenthal, all proved fatal.

#### TREATMENT.

As the inevitable result of extra-uterine pregnancy is the death of the fetus, and unless recognized in time, very frequently that of the mother, the only rational treatment is operative, and fortunately there is no difference of opinion on that score at the present time.

I have, no doubt that the case cited by Sutton of the sudden death of a woman in a Paris cafe, which was considered a case of poisoning until the autopsy revealed it to be a ruptured tubal pregnancy, has been duplicated many times. I recall such a case occurring a few years ago in Los Angeles, where a woman was taken suddenly ill in a restaurant and died in a hack on the way to the hospital.

While it is true that a certain percentage of cases recover spontaneously, and I would include in this list especially cases of tubal abortion, it is also true that the percentage of recoveries from operations in the hands of competent men is exceedingly large. I think we should look upon extra-uterine pregnancy as a foreign growth and advise operation. Hemorrhage from rupture should be regarded as in the same light as hemorrhage from any other source and we should follow the

universally recognized axiom of surgery, that the hemorrhage should be checked as quickly as possible. However, we do find men with wide reputation who advise delay and who quote figures as follows: Simpson says that the facts do not warrant the conclusion that 70 per cent. or 60 per cent. or even 10 per cent. of those who sustain rupture will, of necessity, bleed to death. Also, Dr. Karl Hartog, of the Landaus clinic, says he had made a complete review of the German statistics and finds that no more than five per cent. of the victims of ectopic pregnancy die from hemorrhage at the time of rupture.

Ladinsky of New York, who has a reputation of having more extra-uterine pregnancy cases than any man in this country, told me that he had noted time and again that the length of time the patients have been allowed to bleed had more to do with the profoundness of the depression and shock than the amount of blood lost, and also that the ability to react will be influenced more by the duration of the hemorrhage than by the amount. Patients operated on shortly after the rupture has taken place, no matter how profound the shock and profuse the hemorrhage, react within a few hours, while patients operated on after the hemorrhage had continued for some time, even if the amount of blood lost was comparatively slight, were very much slower to respond to stimulation. He further says if it were not for this observation which has been brought to his attention in a large number of cases, he might subscribe to the suggestion to delay the operation until the indications for operation can be determined beyond a question of a doubt. But if we admit, for the sake of consideration, that only 5 per cent. do die at the time of rupture, if not operated on, are we not called upon to make the effort to



save their lives also and reduce the fatality to a minimum? And that every case in profound shock operated on by him recovered, and no case was refused the benefit of an operation as long as there was a spark of life left, and that he can see no sense in waiting with the operation and trusting to chance, when, in so doing, the margin of reserve strength of the patients is gradually diminished, and no possible improvement effected in the percentage of cures.

Robb of Cleveland advocates delay in operations and bases his conclusions on a series of twenty cases in which only five showed evidences of shock, and who were treated on the expectant plan and operated on at periods ranging from one to twelve days. He reports one death ten days after operation, due to volvulus and intestinal adhesions, and two patients discharged with "adherent pelvic structure." These results, as compared with results of immediate operation, are the best possible refutation of the theory of the expectant plan of treatment.

### OPERATION.

The abdominal route is the one to be preferred, in my opinion.

Reasons: In cases of extreme urgency the time saved in checking the bleeding by the abdominal route is considerable, for in competent hands it takes a comparatively short time to open the abdomen, to grasp the broad ligament between the fingers or in a clamp, and check the bleeding; then the tube and its contents may be withdrawn from the abdomen, ligated and removed in the usual manner. By this route inspection of the parts can be more thoroughly accomplished, plastic work on diseased adnexa or appendectomy can be done with greater ease and dispatch, intestinal adhesions, that could not possibly be reached through the vaginal incision,

can receive the proper attention, and there is less risk of leaving behind blood clots, a fetus or a macerated gestation sac.

By the vaginal route the hemorrhage may not be altogether controlled: frequently fresh bleeding may be started from the upper portion of the sac or from the parts to which it is adherent. This is especially true of intra-ligamentous pregnancy when the layers of the broad ligament have been dissected up, and the hemorrhage will cease only after the raw surfaces have been covered over by sewing together the torn edges of the parietal peritoneum, a procedure absolutely impossible through the abdominal incision. The best operators of the day agree that the unruptured and the recently ruptured tubal pregnancies should be operated on by the abdominal route, while a few, including Kelly, advocate the vagina route for all ruptured cases. As I have pointed out, I would reserve for the vaginal route only cases of pelvic abscess and suppurating hematoma or hematocele.

In all abdominal cases the wound should be closed without any drainage either from above or through the vagina.

Free blood, and especially clots in the abdominal cavity, should be removed by gentle mopping with sponges or rolls of gauze. Special efforts should be made to remove all the clots from the peritoneal cavity in view of the fact that they might become encapsulated and infected, but a slight amount of blood left in the peritoneal cavity will soon be absorbed. Irrigation should never be used to wash out the peritoneal cavity. A word about venous infusion. The most important life saving measure next to a rapid and skillful operation in this disease is venous infusion. I know of no condition in surgery where venous infusion

plays so important and useful a role as in the internal hemorrhage from ruptured tubal pregnancy. My object in presenting this paper is mainly and

chiefly to call attention to a condition, which, though thoroughly familiar to all, has not as yet, in my opinion, received the general study it deserves.

## STUDIES OF MALARIA IN PANAMA: PERNICIOUS MALARIAL FEVER.\*

WALTER V. BREM, M.D., LOS ANGELES. LATE CHIEF OF THE MEDICAL CLINIC, COLON HOSPITAL, CANAL ZONE.

Dr. Brem presented to the Society a review and summary of work done in Panama and reported in three papers not yet published. Each of these papers constitutes a separate number of a series of studies of malaria and cannot, therefore, be published here in full, but will appear in the Archives of Internal Medicine.

Dr. Brem pointed out that the multiple subdivisions of pernicious malarial fever were confusing, unnecessary and often based upon misconceptions. As an illustration, he reviewed the experience in Panama relative to the "dysenteric type" of pernicious malaria, and showed that such a type does not occur there, the synchronous infections (malarial parasites and *B. dysenteriae*) being due to the lighting up of latent malarial infections by the dysentery.

Criteria were then proposed for determining the "perniciousness" of malarial infections, viz: (1) the intensity of infection, a six per cent or greater infection of the peripheral erythrocytes; (2) grave cerebral symptoms; (3) hemoglobinuria.

Using these criteria, all pernicious malarial infections can be classified in one of four groups.

Group I. The group of intense infection.

Group II. The comatose group.

Group III. The intermediate hemoglobinuric group.

Group IV. The erythrolytic hemoglobinuric group.

The hemoglobinuria more or less close-

ly connected with malaria, was discussed in detail, and experiments were presented tending to show that erythrolytic hemoglobinuric fever (the old "blackwater" fever) is a manifestation of malaria. A thermo-labile hemolysin has been obtained from malarial parasites, and all sera tested possess an anti-hemolysin against it. The anti-hemolysin of the sera of patients suffering with erythrolytic hemoglobinuria is weaker than that of other persons, and in one instance it was completely inhibited by treating it with quinine in strength approximating those obtained in the blood in the therapeutic use of the drug. The anti-hemolysin of other sera were apparently unaffected by the quinine solutions used. These experiments tend to reconcile the malarial and quinine views of the etiology of the disease.

Treatment of the disease by transfusion of normal blood seems to be indicated.

### DISCUSSION.

Dr. A. H. Zeiler: I think hemoglobinuria, where the peripheral infection is six per cent. or over, is quite common, in fact, it occurs in nearly all cases. The hemoglobinuria is usually not of the intensity of black water fever. We used the guaiacum and turpentine test. I had a number of cases after Doctor Brem went on his vacation and demonstrated it in all of these. Concerning the attempts at transfusion in two cases, one of these patients died and one recovered, but not because of

\*Delivered at the Los Angeles County Medical Association October 20, 1911.

the transfusion, because no blood was gotten into either of them. In a case of fifteen per cent. infection I isolated the hemolysin. One loopful of hemolysin to three loopfuls of normal corpuscles completely hemolyzes in about twenty minutes.

Dr. Cole: I have been interested, as you all are, in the presentation of this beautiful subject. As I understand it, there were 4,691 cases. Did these all occur among the employes of the Canal Zone?

Dr. Brem: About two-thirds were employes, the others were among the general population.

Dr. Cole: I can see how some cases might be so light they would not come to you for treatment, but did you know the percentage of people in the zone infected with malaria?

Dr. Brem: In reply to Dr. Cole's question, during the year 1908, 28.32 per cent. of the employes of the Isthmian Canal Commission were admitted to the hospitals with malarial fever, while during 1910, 18.6 per cent. were admitted. Dr. Darling, in a special investigation, found that 18 per cent. of the white European employes had latent malarial infections.

Dr. Whitman: I would like to know something about the treatment and how the quinine was administered.

Dr. Brem: We had three series of cases under different systems of treatment with quinine. The first series was treated with five grains every four hours, i. e., 30 grains in twenty-four hours. Dr. Gorgas, in another series, gave 30 grains daily, 10 grains at 6 A. M., 10 at 8 A. M. and 10 grains at 10 A. M., thus giving it all in the morning hours. He also gave some cases 20 grains during the morning hours. On analyzing these three series I found 20 grains inadequate. Regarding the other two systems, five grains every four hours and 30 grains given in the

morning hours, the duration of the febrile period was practically the same. Vomiting occurred in fewer instances when 30 grains of quinine was given during the morning hours, and as this was the method less distressing to the patients and more convenient in the ward, we finally adopted it with a slight modification—15 grains at 8 a. m. and 15 grains at 11 a. m., i. e., 30 grains in the morning hours in two doses. I was curious to know why quinine was more effectual when given by this method, so I analyzed another series of cases to find when the paroxysms occurred. I found that over 80 per cent. occurred between noon and 8 p. m. By giving quinine during the morning hours we obtained, therefore, a good concentration of quinine in the blood at the time of sporulation of the parasites, i. e., when the parasites were most susceptible to it. The effectualness of the system was explained by these findings.

The Chairman: What change did you make in the quinine dosage in pernicious malaria?

Dr. Brem: At first we gave 10 grains intramuscularly every four hours, but later on we found that when given by the mouth it was even more effectual and was absorbed more rapidly. That has been shown by chemical tests. Deadrick reviews the question thoroughly in his book, "A Practical Study of Malaria." We then gave these patients 10 to 15 grains every four hours by mouth. In the case of an extremely heavy infection, we used the intravenous method and gave 15 to 20 grains every eight hours with doses of 10 or 15 grains by mouth or intramuscularly between the intravenous doses. To the patient with 66 per cent. of the peripheral erythrocytes infected we gave 200 grains in 24 hours without any appreciable effect on the parasites. They were almost as numerous at death as when we began, 30 hours earlier.



# SOUTHERN CALIFORNIA PRACTITIONER

A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.

This journal endeavors to mirror the progress of the profession of California and Arizona.

Established in 1886 by

WALTER LINDLEY, M.D., LL.D., Editor and Publisher.

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Address all communications and manuscripts to

EDITOR SOUTHERN CALIFORNIA PRACTITIONER,

Subscription Price, per annum, \$1.00.

1414 South Hope St., Los Angeles, California.

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## EDITORIAL

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### WALTER WYMAN.

There was no man in the United States whom we felt was more important to the people and the government than Surgeon General Walter Wyman. He died in the Providence Hospital, Washington, D. C., November 21, from a carbuncle of the face.

He entered the Marine Hospital service in 1876 and was appointed Supervising Surgeon General in 1891. He was born in St. Louis, August 17, 1848, and took the degree of A. B. from Amherst College in 1870 and in medicine from the St. Louis Medical College in 1873.

His history as a public officer was one of continuous energy directed along the lines of enlightening the profession and protecting the public. He was plain and unostentatious, open and accessible and ever alive to suggestions for the better-

ment and development of his department. When once satisfied that any step was right he was fixed in his determination and neither temptation nor threats could swerve him.

The Pacific Coast has especial reasons for always remembering him with gratitude and respect.

It was at Dr. Wyman's suggestion that the first Government Sanatorium for the treatment of Tuberculosis was established at Fort Stanton, N. M.

We wish that he could have been spared for ten years more of efficient life to have carried on and extended the important work in which he was engaged.

At the time of his death he was President of the American Medical Editors' Association, an organization in which he took an active interest.

**THE DOG OR THE CHILD.**

So many of our citizens are so kind to their dogs. The report of the State Hygienic Laboratory shows the following laboratory examinations for rabies:

	Pos.	Neg.
At the State Hygienic Laboratory .....	44	36
Laboratory of Los Angeles Health Dept .....	64	39
Laboratory of Long Beach Health Dept .....	4	0
Laboratory of Dr. Stanley P. Black, Los Angeles.....	52	5
	—	—
	164	80

At least 68 human beings were bitten

by rabid animals. There were five unnecessary deaths of human beings from this horrible disease. The report states that "there is every indication that the disease will continue to spread until it is curbed throughout an extensive area by the muzzling of all dogs at large, and the destruction of ownerless dogs. Rabies can be more easily eliminated by proper measures than any of the other important epidemic diseases." We are constrained to cry with Burns, "Man's inhumanity to man makes countless thousands mourn." But Fido doesn't like to wear a nasty old muzzle, do oo, Fido!

G. E. M.

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**EDITORIAL NOTES**


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Dr. H. V. Clymer of Yuma, Arizona, has been taking a vacation in Los Angeles.

In the advertisement of Dioradin, "Peptonized Iodine" should read Iodized Peptone.

Dr. B. Robinson, formerly of Hawthorn, Nevada, has located at Yerington, Lyon county, Nevada.

Dr. Alfred D. Long of San Diego and Miss Lucy Frances Evans of Boston were married November 15.

The people of the town of Palo Verde, Cal., propose to raise a bonus of \$100 a month to secure a physician for the town.

Sir James Young Simpson, the discoverer of the Anaesthetic properties of chloroform, was the youngest of seven sons of the village baker.

Dr. G. A. Fielding of Sawtelle has been in the Santa Monica Hospital suffering from typhoid fever. He is now in the mountains convalescing.

Dr. Walter B. Schwuchow, recently of Los Angeles, has located at 513 East E street, Ontario, Cal., where he will continue the practice of his profession.

Dr. E. B. Buell of Escondido is suffering from some broken bones due to his automobile turning turtle on November 17. From last reports the doctor was doing fine.

Dr. O. S. Brown, the well-known surgeon of the Santa Fe at Winslow, has recently been in Southern California looking after his property interests in Riverside county.

Dr. Thomas W. O'Reilly announces that he is limiting his practice to Medical Electricity and X-Ray work. His office is in the Merchants Trust Building, Los Angeles.

Dr. E. O. Cokat, formerly of Tacoma, is now resident physician of the Arrowhead Hot Springs. As a side issue Dr. Cokat has purchased an orange grove in San Bernardino county.

Dr. Morris P. Hunt of Columbus, Ohio, died at Santa Monica, Cal., November 20. Dr. Hunt was 58 years old and at one time Professor of Surgery at the University of Michigan.

Dr. Rex B. Duncan, former assistant Health Commissioner of Los Angeles, is devoting a few weeks to investigating the examination of immigrants in New York, Philadelphia and Baltimore.

Maj. Benjamin F. Hayden, senior assistant surgeon of the Central Branch, Dayton, Ohio, has been promoted to be chief surgeon of the Pacific Branch of the Soldiers' Home at Santa Monica.

The Arrowhead Hot Springs Company announce that C. C. Oswald has been employed as manager of their hotel at Arrowhead Hot Springs. Mr. Oswald was in the Harvey service over six years.

Because of two deaths from poliomyelitis the public schools of Palo Alto have been closed. The victims of the disease were Miss Carolyn Hazen, age 26, a hospital nurse, and Miss Doris Culvert, 18 years old.

Dr. L. V. Harvey of Ontario, Cal., is planning a ten years' automobile trip. He is having two trailers built for his automobile, one is a regular bed-room mounted on four auto wheels, and the other is a complete kitchen on wheels.

The following physicians were elected members of the Los Angeles County Medical Association at the meeting held November 16, 1911: Drs. G. P. Doyle, E. M. Brown, A. F. Maisch, A. T. Charlton.

The proprietor of The Rosena Rest Retreat, 2814 Downey avenue, Los Angeles, has been spending several weeks in Boston, New York and at the Johns Hopkins doing special study in sanatorium work.

The Central Executive Committee, A. M. A., report that Dr. Frank Zelinsky

should have been credited with paying \$50 into the entertainment fund. Dr. Emma Carson should also have been credited with \$10.

Dr. O. C. McNarry of the hospital at the Soldiers' Home at Santa Monica, has resigned and proposes to take life easy in an orange grove that he owns near Whittier. Surgeon C. C. Elliott temporarily succeeds him.

Toe dancing, the kind that made Pavlowa and Mordkin famous, is recommended by Dr. Virgil P. Gibney, chief orthopedic surgeon of the hospital for ruptured and crippled children, for the cure of flat-footed children in the public schools.

Rear Admiral John Yeatman Taylor, retired former medical director of the United States Navy and a distinguished surgeon, age 82, committed suicide in Washington, D. C., November 16, by shooting himself in the head with a navy revolver.

The article that appeared in the Southern California Practitioner for November on "The Curative Treatment of Constipation," by Dr. Boardman Reed is an abstract of a longer paper that appeared in the American Journal of Gastro Enterology.

In the last year in London, with a population of 7,000,000, there were but nineteen murders. Of the nineteen murders five committed suicide. All of the murderers except four cases were arrested and either convicted and executed or committed to the insane asylum.

Miss Lucy Raney recently sued the North American Hospital Association of San Francisco and Dr. C. L. Biglow for having left one yard of cotton cloth in her abdomen for three months after a surgical operation. She asked judgment for \$5000 damages and \$500 for extra expense.



Dr. J. MacDonald, Jr., announces that the American Journal of Surgery of 92 William Street, New York, will issue a special Western number in the early part of 1912. Doctors John B. Murphy, Geo. W. Crile, A. J. Ochsner and a number of other very prominent authorities have contributed articles.

Dr. Michael Creamer of Los Angeles, while riding along alone in his automobile on November 28, was run into by a big Lozier and his car was completely wrecked. Very fortunately the doctor himself was not seriously injured. The driver of the big car speeded away before his identity could be made.

We are glad to notice the appointment of Dr. Elizabeth F. Kearney of 2109 Estrella avenue, Los Angeles, as a member of the State Board of Lunacy. Dr. Kearney is said to be the first woman to hold such office west of Chicago. It will be a great comfort to many families as well as to the examining judge to have a woman as one of the examiners in lunacy.

Dr. John Hamilton Hollister, age 87, died at Redlands, Cal., November 13. Dr. Hollister received his degree of M. D. from the Berkshire Medical College at Pittsfield, Mass., in 1847. He was a delegate to the American Medical Association in 1856. In 1857 he was elected demonstrator of anatomy in Rush Medical College. He was also professor in the Northwestern University Medical School.

The Riverside County Medical Society were the guests of Dr. and Mrs. J. H. Holland at their home in Arlington on Monday evening, November 13. This was the regular monthly meeting of the Association and twenty-two members were present. As a preliminary Dr. and Mrs. Holland had them all as their guests at a delightful dinner, after which Dr. Jennings of the Southern California Hospital for the Insane at Patton read

a paper on "Phases of Insanity," followed by a paper by Dr. Carl Sleeper on "Vaccine Therapy." Both papers were freely discussed.

Dr. Flavel B. Tiffany, President, and Dr. Samuel C. James, Dean of the University Medical College, Kansas City, are sending out a circular letter to their United States Senators and Board of Regents and chancellors and presidents of the different Universities suggesting that the students of Medicine in their University take the first two years of Didactic and Laboratory study there and the last two years in the University Medical College which will give only the junior and senior years, that is the clinical part of the instruction. This is the plan that has been adopted by the University of California except that it has two Clinical Schools, one in Los Angeles and the other in San Francisco.

Dr. Walter Gray Crump of New York City sends us a reprint entitled "A New Oil in the Treatment of Post-Operative Abdominal Adhesions." Dr. Crump reports the use of *sterilè olive oil* poured freely into the abdominal cavity. He has used this in over 200 abdomens. He believes its use has marked a decided advance in surgery. The only objection he found to this was that olive oil had an acid reaction. He then had chemically neutral oil extracted from the fat of the Omentum and appendices of cattle. This oil he found was also markedly bactericidal. He has also used this oil with most gratifying results in cases of tubercular peritonitis. Dr. Crump is Professor of Gynecology of the New York Medical College for Women and will send a reprint of his article to any person interested.

On November 10, President Taft visited the Sewanee University in the Cumberland Mountains. In the course of his speech he said: "There is another

gentleman in Panama, Colonel Wm. C. Gorgas, whose instruction at Sewanee prepared him to render a great service to his country, and to him must be attributed the chief credit in the building of the Panama Canal. The French tried to build this canal, but on account of malignant malaria and yellow fever they were compelled to abandon the project. Colonel Gorgas learned a great deal about yellow fever and malignant fever and their causes, and having once found the cause we had the key to the situation. I say this unreservedly, that without Colonel Gorgas's knowledge and the work which has been done under him, the canal could not have been built. He came from Sewanee."

We regret to note the death of Dr. Merritt B. Campbell, who died December 1st at Heber, Cal. Dr. Campbell was born at Williamstown, Vt., sixty-

eight years ago. After graduating from the Harvard medical school, he came west and acted as medical officer at the Joliet penitentiary for twelve years. From Joliet he came to this state and became superintendent of the Southern California Hospital for Insane at Patton. After eleven years' services he established a practice in this city which he maintained until his retirement three years ago. Since that time he has made Heber his home. His son, Dr. F. A. Campbell, of this city, and four daughters survive him. Dr. Campbell was an intelligent, likeable man, one who had the respect of the profession wherever he was known and who was pleasant, genial and at the same time thoroughly up-to-date in his specialty. Owing to ill health he has not been active for the last few years. His family have our sincere sympathy.

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## MISCELLANEOUS

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### CHRISTIAN SCIENCE.

If Christian Scientist theories prevailed, there would be no quarantine against smallpox; there would be no muzzling of bad dogs; no fly paper; no mosquito netting. Diphtheria, scarlet fever, tuberculosis, the plague, and every other pestilential malady are, according to Christian Science theories, not real things which need to be combated by sanitary cordons and quarantine restrictions, but only false beliefs which only need to be denied and ignored. People entertaining such fantastic notions as these can consistently do nothing else than oppose any movement or measure which recognizes disease as something which needs to be fought by substantial remedies.

The Christian Scientist would ignore and trample upon every sanitary law if he were permitted to do so. It has only

been by the stern hand of the legal authorities in numerous instances laid upon the Christian Scientists in a court of justice that Mrs. Eddy's followers have been brought to recognize and obey the law in relation to diphtheria and other contagious diseases. If Christian Scientists had their way, the life of every child in every community where this strange cult is propagated would be endangered. Children suffering from diphtheria would mingle with other children in the public schools. Public funerals would be held in the cases of persons dying with smallpox and other contagious diseases, and whole communities would be infected. All measures now in regular operation for the suppression of disease and the protection of public health against typhoid fever through impure water supplies, against malaria through the draining of swamps

and the suppression of mosquitos, against plague by the invasion of rats—these and all other sanitary measures would be ignored.

If patent medicine venders and other commercial interests which constitute the backbone of the League for Medical Freedom had their way, the pure food laws and the wholesome regulations against pernicious nostrums would be speedily abolished and every scalawag in the United States would be at liberty to victimize the public and jeopardize the public health at his pleasure, with no one to molest or make him afraid.

If, as we have already observed, the national department of health is objectionable because it is being encouraged by the leading physicians of the United States, as well as other intelligent and leading citizens, then every State board of health, every municipal board of health, every health office in the United States could be abolished for the same reason, for these boards and health offices would never have existed and could not long continue to exist without the medical profession. If the national department of health is open to suspicion because it is supported by medical men, every board of health in existence is open to suspicion for the same reason.

Senator Works, of California, in a display of ignorance and narrow-minded-

ness in a recent speech in the Senate attacked the proposal to create a federal department of health. Senator Works' speech would have been all right in a Christian Science experience meeting, but it is as much out of place in the United States Senate as would be a political speech in a prayer meeting. The Senator believes that he was cured; that his wife was cured of chronic maladies by Christian Science; and that his son has been enabled by the help of Christian Science to abstain from drinking whiskey for seven years. What has all this to do with a department of health? The department of health does not propose to prevent people being healed of hypochondria or hysteria or even of inebriety by Christian Science methods or by any other method. The function of the department of health is to keep people from getting sick, to investigate and to make known to the public the causes of disease. State boards of health have not interfered with Christian Scientists in any efforts they have ever made to cure hypochondria, hysteria or inebriety. Only when their theories have been applied in such a way as to imperil the life and health of citizens has the State stepped in and exercised its authority, as when Christian Science healers have undertaken to cure by their methods cases of diphtheria or other infectious maladies.—*Good Health*, September, 1911.

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## BOOK REVIEWS

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DISEASES OF THE DIGESTIVE CANAL (OESOPHAGUS, STOMACH, INTESTINES). By Dr. Paul Cohnheim, Specialist in Diseases of the Stomach and Intestines in Berlin, from the second German edition, Edited and Translated by Dudley Fulton, M.D., Assistant Professor of Principles and Practice of Medicine, University of California, California College of Medicine, Los Angeles Department; Attending Physician Los Angeles County Hospital. Illustrated, Second Edition. Philadelphia and London: J. B. Lippincott Company. Price, \$4.00.

It seems but a few weeks since the

very exhaustive review by Dr. Wm. A. Edwards of the first English edition of Cohnheim's Diseases of the Digestive Canal appeared in the Southern California Practitioner and here is already a second edition revised and enlarged. While it is Cohnheim's work, yet our American editor and translator, Dr. Fulton, has emphasized the increased value of Skiagraphy in recognizing abnormal



conditions of the digestive organs, and also added other editorial notes of value.

This is not an encyclopedia nor a compilation. It is a practical work written by one of the most practical of men. In his introduction Cohnheim says:

"I cannot sufficiently emphasize the need of making a provisional diagnosis while obtaining the history of the patient, which the physical, chemical and microscopical findings will either confirm or reject.

"When considered alone, the physical findings are far more liable than the clinical history to mislead one in making the diagnosis. For example, the diagnosis of 'dilatation of the stomach' is frequently made when the greater curvature of the stomach is found to be below the umbilicus. Now, since vomiting is never absent in actual dilatation of the stomach, and the history of the patient would establish the presence or the absence of this symptom, a careful anamnesis would thus prevent this wrong diagnosis."

The first part of the work known as General Section contains a number of questions, as for instance:

1. How long have you been ill?
2. Do you suffer constantly or only occasionally?
3. Can you swallow all kinds of food without difficulty?
4. Have you actual pain or only pressure?
5. If only pressure and discomfort are felt, are they constant or do they occur only after meals?
6. If you have actual pain, what is its character, and when and where does it occur?
7. Do you vomit?
8. What is the condition of your bowels?
9. What are your general symptoms?
10. From what diseases have you previously suffered, and what is your family history?

The author's instructions as how to ask these questions and how they should be answered contain a great number of valuable hints for the practitioner. Physical and internal examinations form two more important parts of the work.

Under special section, Diseases of the Oesophagus, Diseases of the Stomach and Diseases of the Intestine are thoroughly covered.

Methods for treatment are given in a clear detailed manner. Nothing more practical has ever been printed. The large sale of the work has been thoroughly justified. Among the numerous practical illustrations there is an excellent picture of the editor and translator, and we trust that future editions will besides contain a picture of Dr. Cohnheim. We believe that every medical work would gain in value by having as a frontispiece a picture of the author. It would seem more as though the writer were speaking to us and would thus bring us closer to the fountain of knowledge. In bringing Cohnheim's work to the medical profession of America, Dr. Dudley Fulton has given us an excellent antidote to the therapeutic nihilism that is so dangerously prevalent.

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DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Medicine, Nursing, Biology and kindred branches; with new and elaborate tables. Sixth Revised Edition. Edited by W. A. Newman Dorland, M.D. Large octavo of 986 pages, with 323 illustrations, 119 in colors. Containing over 7000 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1911. Flexible leather. \$4.50 net; thumb indexed, \$5.00 net.

Dictionary making is becoming almost universal with publishing houses, and a medical dictionary comes to our reviewing table at the rate of at least one a month. This Dorland is here now for the sixth time, and each time with marked improvement. This edition contains over 7000 new words.

A great advance was made in diction-

aries when capitalization was added, so that initial-capital letters would indicate proper names only.

This dictionary contains medical biographies of men whose names have been given diseases, structures, etc. As an idea of the value of this feature we quote herewith three of the biographical notices which appear together on page 496:

"Meyer's disease (mierz) (Hans Wilhelm Meyer, German physician, 1825-1896). See disease.

"Meynert's bundle, M's commissure, M's fasciculus (Minerts) (Theodore Meynert, French physician, 1831-1892). See bundle, commissure, fasciculus.

"Meynet's nodes (ma-naz) (Paul Claude Hyacinthe Meynet, French physician, 1831-1892). See under node."

We notice one coincidence in these three notices, and that is that each one of these physicians died when he was 61.

Another new proposition in this dictionary is the dosage and therapeutic table extending over fifty pages arranged alphabetically and especially designed for quick reference.

The medical profession is well acquainted with the delightful style of binding and printing of this dictionary.

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UNCINARIASIS (HOOKWORM DISEASE) IN PORTO RICO. A Medical and Economical Problem. By Bailey K. Ashford, and Pedro Guterrez Igaravidez, Members of the former Porto Rico Aenemia Commission. 61st Congress, 3rd Session, Senate Document No. 808. Washington: Government Printing Office, 1911, p. 335, illustrations 28.

This is the simple story of the campaign against hookworm in Porto Rico, and is told modestly without any claims for notoriety or hope of reward. The authors insist that the name of Doctor W. W. King should be associated with theirs in this work, for although he did not take part in the preparation of this final report he was associated with them in their work in Porto Rico from the first.

The first chapter considers conditions affecting uncinariasis in Porto Rico. Here is given a brief history of the island, and it is shown that the hookworm was probably introduced from Africa with the negro slaves about the year 1530. From that time on there are many references to the "jibaro" (farm laborer) as lazy or lacking in energy.

The second chapter treats of the history of a ten years campaign against uncinariasis in Porto Rico. This gives a short account of the disease before November 24, 1899. Then comes the story of the sufferers from the hurricane of August 8, 1899, and how Doctor Ashford, in his field hospital, was perplexed because the patients who were supposed to be suffering from starvation did not improve although fed upon what appeared to be an ample diet. This caused him to study the cases more closely, and in November he came to the conclusion that the cause of the Aenemia in Porto Rico was the hookworm. At this time aenemia was the cause of over one-third of the deaths in the island. Then follows a short sketch of the work of prevention that was organized by Doctor Ashford and his associates.

The next chapter is devoted to a clinical study of the disease. For this they had the records of over 275,000 cases treated throughout the island, and a personal experience with about 13,000 cases. They believe that the disease is one of toxemia, and that the symptoms are not due to loss of blood. They were rarely able to find microscopic blood in the stools, but believe that the parasites do occasionally inject blood. They divide their cases into light, moderate and severe. Many cases that have been reported in which the worms were found to be present, but caused no symptoms are classed as "worm carriers," analogous to "typhoid carriers." Following this is a clear description of the symptoms of the disease. They believe that

the infection takes place through the skin of the feet and legs, these parts being constantly exposed while the workmen are in the fields.

As regards eosinophiles, they had complete data, with weekly blood counts, from fifty-eight cases, of these 87.9 per cent showed an increase in the eosinophiles while under treatment.

The illustrations in this portion of the book are very clear and instructive. They show cases in all stages of the disease and also some of the very best cuts of the ova of the parasites. These photomicrographs were made by that medical artist, the late Doctor William Gray of the Army Medical Museum.

The next one hundred and thirty pages are devoted to a review of the several reports of the various Anemia Commissions, and contain much valuable information.

Following this section is a brief plan for combating uncinariasis in Porto Rico. This section is very practical and contemplates the expansion of the dispensaries already established, into centers for the prevention of disease in general.

An appendix of ninety-one pages contains the case histories of the patients that have been treated in the hospitals during the campaign. Much careful work is shown in this section and it should be studied by those who have such cases under treatment.

One can not read this modest statement of one of the greatest sanitary campaigns that has ever been carried out without feeling an admiration for the young man who by his own efforts aroused sufficient public opinion to make it possible. We see him working with his patients in the rude hospital at Ponce, perplexed that his treatment does not accomplish the desired results. Then we see the joy on his face when the cause of the disease is discovered. Now he is endeavoring to make people be-

lieve what he has discovered. We again see him in his comfortable station in the home land, still thinking of the suffering people of Porto Rico, and asking to be sent back that he might again take up the work.

The public has heard very little of the small band of physicians who began the work in Porto Rico. Doctor Ashford has not been honored by the government, nor has the Medical Profession honored him as it has other men who have worked in the tropics. And yet he is the type of men that has made our country what it is. His work in Porto Rico is a bright page in the history of our country.

ISAAC W. BREWER.

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DIAGNOSTIC AND THERAPEUTIC TECHNIC. By Albert S. Morrow, M.D., Adjunct Professor of Surgery, New York Polyclinic. Octavo of 850 pages, with 815 original line drawings. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$5.00 net.

Anesthesia General and Local are first considered. Little new may be possible, but some of the apparatus for carrying on artificial respiration might well be shown. The "Pulmonitor" used in the Pennsylvania coal fields is perhaps the latest and best device for this purpose. Infiltration anesthesia has been made more easy of application by the "Matas" or "Morrow" massive infiltrators. Each of these embodies a graduated glass reservoir in which air can be compressed, forcing the anæsthetic solution through a rubber tube to the needle.

Sphygmomanometry is covered in Chapter III. Diseases and conditions affecting blood pressure are briefly recounted. More attention is being given to this subject, especially in life insurance examinations. Renal affections, cardiovascular diseases, and brain or head injuries call for repeated sphygmometric examinations if intelligent application of therapeutics to these serious conditions is to be made.



Bier's "Treatment by hyperemia is based on the theory that inflammation represents nature's efforts for protection of the body against bacterial invasion and in the restoration of a part to a healthy condition." One is impressed with the possibility of combining hyperemia with vaccine therapy or use of anti-toxins. As either of the latter increases the elements in the blood resistant to infection, concentration of such blood, by hyperemia, at the point of greatest need would seem logical. We are cautioned by the author that, "Certain cases of very rapidly extending infection, with acute onset require early incision in conjunction with hyperemia. If incisions are not made, the hyperemia may do harm and the local inflammation become worse."

Collection of bacterial specimens from the female genitalia is illustrated by drawings from "Ashton." Neither of the authors show the examiners' hands protected with rubber gloves. Routine use of gloves for all vaginal examinations protects not only the surgeon but his subsequent patients.

"Transillumination is a valuable aid for determining the condition of the frontal and maxillary sinuses." A dark room is required, the transilluminator a small electric light of special design, is placed in the mouth. When the lips are closed the maxillary sinuses transmit light equally if both are normal. The presence of a tumor, pus or great thickening from inflammation will darken one field.

Examination of the respiratory passages, including the bifurcations of the trachea, is possible with new electrically-lighted instruments. On page 373 is illustrated the location of a foreign body, in the trachea, by using a bronchoscope. Low tracheotomy is performed and the instrument is passed through the incision deep into the trachea.

Considerable repetition in illustration may be carelessness, or a desire of the

author to especially emphasize these subjects. Duplication of nearly a dozen figures within fifty pages seems hardly necessary, however. C. W. D.

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A TEXT BOOK OF PATHOLOGY, With a Final Section on Post-Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By Francis Delafield, M.D., LL.D., Emeritus Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia University, New York, and T. Mitchell Prudden, M.D., LL.D., Emeritus Professor of Pathology, College of Physicians and Surgeons, Columbia University, New York. Ninth Edition, with thirteen full page plates and six hundred and eighty-seven illustrations in the text, in black and colors. New York: William Wood & Company, 1911. Price \$5.50 net.

In the preface of this, the ninth edition, Dr. G. Mitchell Prudden says that Dr. Delafield no longer shares in the preparation of the work. Dr. Prudden has thoroughly revised this edition and added over forty new illustrations. The chapter on the Blood and the Blood-forming Organs and the chapter on Tumors have been rewritten and the section on Malaria has been revised by Professor Francis Carter Wood.

This book in its eleven hundred pages contains a cyclopedic view of morbid conditions. In the chapter on

#### Tumors

the author shows conclusively that *heredity* gives only a predisposition to the development of tumors. In speaking of the influence of *sex* he says: "It may be said that statistics indicate malignant tumors to be twice as frequent in females as males. While tumors are more frequent in adult and advanced life, yet tumors of the connective tissue type are apt to develop earlier, while the epithelial tumors are more frequent in the later periods." In speaking of the biological origin of tumors the author gives much space to what is known as "*Cohnheim's Hypothésis*." "Among opinions needing revision may be mentioned the *alleged relative rapid increase in the frequency of cancer*, which rests upon data obviously faulty; the conten-

tion that metastases in malignant tumor are closely analogous with metastases in infective processes and indicate the infective nature of the former; the view that carcinoma has been in many instances directly conveyed by contact from a victim of the disease to a well person; the successful inoculation of carcinoma of man into the lower animals. None of these points has been sustained by reliable data." This section on tumors occupies nearly 100 pages and is of unusual interest. In the chapter on the Blood and the Blood-forming Organs it is stated: "Owing to the general use of litmus as an indicator the reaction of the blood has long been considered to be alkaline, but it has lately been shown by physico-chemical methods that the blood may be considered as approximately a neutral fluid." At the outset of the chapter on The Spleen and Thymus the author makes the following statement in regard to the

#### **Susceptibility of the Spleen.**

"In studying the lesions of the spleen it is important to bear in mind the peculiar relations in which this organ stands to the blood-vessels and to the circulation. After passing through the various branches of the splenic artery and the limited systems of capillaries which are associated with it, the blood is not received at once into venous trunks, as in other parts of the body, but is poured directly into the pulp tissue. In this it circulates, under conditions which render it liable to stagnation and undue accumulation, before it is taken again into well-defined vessels through the open walls of the cavernous veins. Moreover, these conditions, naturally unfavorable to undisturbed and vigorous circulation, are reinforced by the association of the splenic with the sluggish and often interrupted portal circulation. Bearing these considerations in mind, it is in a measure plain why, as is in fact the case, the spleen should

be more liable to alterations in size than any other organ in the body, and why, serving as it does as a sort of blood filter, it should be especially susceptible to the influence of deleterious materials of various kinds which in one way or another gain access to the blood.

The chapter on methods of Preserving Pathological Specimens contains several valuable formulas.

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A TEXT-BOOK OF PHYSIOLOGY: FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, Ph.D., M.D., Professor of Physiology, Johns Hopkins University, Baltimore. Fourth Edition, Revised. Octavo of 1018 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$4.00 net; Half Morocco, \$5.50 net.

Physiology is especially interesting to the scientific adventurer, as it points the way to so much unknown territory. While a text book such as this with comparatively small space must avoid discussions on questionable topics, yet Prof. Howell gives us a glimpse of that which is latest on practically every physiological topic.

He enters quite fully into an elucidation of

#### **THE NEURON DOCTRINE**

in the course of which he says:

"The neuron doctrine, so far as the name at least is concerned, dates from a general paper by Waldeyer, in which the newer work up to that time was summarized. The main facts upon which the conception rests were furnished by His (1886), to whom we owe the generally accepted belief that the nerve fiber (axis cylinder) is an outgrowth from the cell, and secondly by Golgi, Cajal, and a host of other workers, who, by means of the new method of Golgi, demonstrated the wealth of branches of the nerve cells, particularly of the dendrites, and the mode of connection of one nerve unit with another."

To show that all knowledge in physiology is not of recent discovery, we refer to his statement in regard to

## THE CEREBRUM.

"From the time of Galen in the second century of the Christian era the brain has been recognized as the organ of intelligence and conscious sensations. Galen established this view not only by anatomical dissections, confirming the older work of the Alexandrian school (third century B. C.) in regard to the origin from the brain of the cranial nerves, but also by numerous vivisection experiments upon lower animals. All modern work has confirmed this belief and has tended to show that in the cerebral hemispheres and, indeed, in the cortex of gray matter lies the seat of consciousness."

As to the  
FUNCTION OF THE CEREBELLUM  
the author says:

"The functions of the cerebellum are, in some respects, less satisfactorily known than those of any other part of the central nervous system. Many theories have been held. Most of these views have been attempts to assign to the organ a single function of a definite character, but latterly the insufficiency of the theories proposed has led observers to attribute to the cerebellum general properties.

"It seems quite clear, however, that the organ exerts a regulating influence of some kind upon the neuromuscular apparatus of our so-called voluntary movements. The precise nature of the regulating influence is in dispute, and one who reads the literature finds it difficult at times to separate clearly the different theories proposed, since some authors are content with general statements and others attempt a more specific analysis.

"In

## THE MEDULLA OBLONGATA

we must recognize a region of special physiological importance in that it is the seat of certain centers which control the activity of the circulatory and respiratory organs."

This volume of over 1000 pages contains interesting chapters on practically everything connected with physiology and the section on *the determination of sex* is of peculiar interest.

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RECENT STUDIES OF CARDIO-VASCULAR DISEASES. Medical Symposium Series No. 2. A Reprint of Articles Published in the Interstate Medical Journal Paper, 216 pp. St. Louis: Interstate Medical Journal Co. Price, \$1.00.

In this symposium cardio-vascular conditions in both health and disease are brought down to the day. The writers are nearly all men widely known and worth reading after.

Hirschfelder of Johns Hopkins leads with a profound and very technical study of the heart and vessels by means of the phlebograph and the electrocardiograph. The latter is a perfected instrument recording variations to a ten thousandth of a volt by means of an oscillating platinum wire so small as to be unweighable by the most sensitive scales. The record is made by photographing the wire shadow on a moving film. Much preliminary study has been made on the changes in electric potential found in various toxæmias, disturbed carbon dioxide balance, shock, diastolic rigidity, cardiac over strain and attempts made to put the exercise and hydropathic treatments of circulatory disorders on a definite scientific basis. Most of the results so far may be said to be more suggestive than conclusive.

Adami of Montreal has an article on work fibrosis of the cardiac valves in which no infection bears a casual relation. He traces the development of a low grade endocarditis due to reparative reaction to overstrain.

Our own Pottenger gives a study of displacements of the heart and diaphragm in pulmonary tuberculosis and the symptoms resulting therefrom. His assistant, Pomeroy, contributes a study on blood pressure in pulmonary tuberculosis as affected by altitude and barometric changes.



An interesting ramble over the circulatory field is contributed by Hare, who makes a good point in insisting on changes in relation between pulse rate and blood pressure as being the rational indication for cardio-vascular medication.

There are fifteen other contributors to this symposium, including Hamburger on arterio-sclerosis of the abdominal vessels, Taussig on technique and interpretation of blood pressure, Gerstley on surgical and medical shock, Abt on cardiac diseases of childhood, and others who cover cardio-vascular conditions in pregnancy, throat conditions, the pharmacology of cardinals, diagnostic use of X-rays, hydrotherapy, organotherapy and surgery of the heart and blood vessels.

A symposium such as this is immeasurably ahead of the ordinary text book for the active physician. He has the cream of thought directly from the original sources with none of the space killing effort at exhausting the whole field invaded. He also has the original thought and phraseology of the author and not that of some assistant who half expresses what the author has not time to record.

C. L. B.

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TEXT-BOOK OF EMBRYOLOGY. By Frederick Randolph Bailey, A.M., M.D., formerly Adjunct Professor of Histology and Embryology, College of Physicians and Surgeons (Medical Department of Columbia University), and Adam Marion Miller, A.M., Instructor in Anatomy, Medical Department of Columbia University. Published by William Wood & Company, New York. 672 pages, with 515 illustrations. Price, \$4.50 net.

This is the second edition in two years. The Text-book is an outgrowth of the course in Embryology given at the Medical Department of Columbia University. It was intended primarily to present to the student of medicine a suitable text-book on Embryology, but as the work took form it was broadened so as to be of greater value to the general student of Embryology and allied

sciences. So-called "Practical Suggestions" are added at the end of each chapter, in which the laboratory worker is furnished with the more essential practical suggestions concerning the study of the structures described in the chapter. Methods of procuring, handling and preparing embryological material, and some of the more important formulae are given in the Appendix.

The development of the germ layers has received rather elaborate treatment from a comparative standpoint, which is probably the most satisfactory method of teaching the subject. Under organogenesis there is given a brief description of certain developmental anomalies which may occur in connection with the organs described. In the chapter on teratogenesis, the nature and origin of the more complex anomalies and monsters are discussed, and also the causes underlying the origin of malformations.

Of the actual formation of the germ layers in man, practically nothing is known. There are no observations on the segmentation of the ovum, the first differentiation of cells, or the origin of the embryonic disk and germ layers. A very young human ovum, described by Leopold, does not show any structures which can be interpreted as the embryonic disk or any part of it. Another young ovum described by Peters shows all three germ layers and the flat embryonic disk. Bryce and Teacher have recently described an ovum, the youngest on record, in which all three germ layers are formed.

G. E. M.

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THE PARASITIC AMOEBAE OF MAN. By Charles F. Craig, M.D., Captain, Medical Corps, United States Army. From the Bacteriological Laboratory of the Army Medical School, Washington, D. C., and the Rockefeller Institute for Medical Research, New York City. Published with the authority of the Surgeon-General of the United States Army. Philadelphia and London: J. B. Lippincott Company, 1911. Price, \$2.50.

This contains the last word regarding parasitic amoeba in the light

of present fact proven or biological probability. For the general reader it is too replete in classification for practical use. For the laboratory worker it is a complete guide in every known technique and should be very useful to him. The author explains a seemingly very satisfactory method of search for amoebae by staining the live organism with neutral red thus dressing the little destroyer in a color suiting his activities and making them plain to the investigator.

Phagocytic action is the pivotal point for the recognition of pathogenic varieties; the presence of vacuoles, characteristic pseudopodia and arrangement of chromatin granules being points of differentiation that only the most skilled worker can utilize. We are told that these organisms have not yet been cultivated outside of a suitable host and convincing evidence given of the pathogenicity of *Entamoeba Histolytica* in amoebic dysentery.

The characteristic pathology is under three heads. First, nodular thickenings in the mucus membrane which are filled with gelatinous material. Second, ulcers with shaggy, thick, undermined edges and covered with necrotic shreds, mucous, pus and blood. And third, sinuses connecting the ulcers and often roofed over by necrotic tissue. The amoebae are constantly present in the undermined pockets, sinuses and nodules. The sites of greatest activity are in the head of the colon and in the lower sigmoid and rectum. The pathology of tropical abscess of the liver and other complications due to these parasites is complete.

C. L. B.

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THE MEDICAL RECORD VISITING LIST  
OR PHYSICIAN'S DIARY FOR 1912.  
New Revised Edition. New York: William  
Wood & Company. Price \$1.25 to \$4.00.

This excellent visiting list for 1912 reminds us that the years are rolling by and a few days more and we will write

1911 as a current date for the last time.

The Medical Record Visiting List has been a standard for years. Each issue is an improvement on the one previous. Aside from fulfilling its place as a diary or visiting list, its table of contents shows that it contains much important data.

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A TEXT-BOOK ON THE PRACTICE OF  
MEDICINE. By James M. Anders, M.D.,  
Ph.D., LL.D., Professor of the Theory and  
Practice of Medicine and of Clinical Medicine,  
Medico-Chirurgical College, Philadelphia.  
Tenth Revised Edition. Octavo  
of 1328 pages, fully illustrated. W. B.  
Saunders Company, Philadelphia and London,  
1911. Cloth, \$5.50 net half morocco,  
\$7.00 net.

The phenomenal growth of this work, passing through ten editions in four years, indicates its worth to the profession. Among the conditions and diseases newly discussed in this volume are: Abortive type of plague, masked chlorosis, polycythemia hypertonica (erythrocytosis), blocked pleurisy, angina major, angina minor, angina abdominis, hourglass stomach, appendix dyspepsia, fatty liver, heat cramps, serous meningitis, tic, and psychasthenia. The amount of new and rewritten matter is too extensive for a limited review.

In the treatment of malaria, Werner recommends "606" (0.6-0.7 gram) in cases in which the parasite is resistant to quinine. In the differential diagnosis between bronchial catarrh and tuberculosis, repeated negative reaction from the Falk and Tedesko test is evidence that the disease process is limited to the bronchi, while a positive reaction indicates pulmonary involvement (tuberculosis). The Falk and Tedesko test consists of the administration by mouth of salicylic acid or its salts. The Salicylic is detected in the sputum by the addition of ferric chloride, which produces a violet color, when the lung texture is involved, while no trace of salicylic acid can be found in the sputum in diseases limited to the bronchi, e. g., in acute catarrhal bronchitis,

chronic bronchitis of emphysema, bronchial asthma, purulent bronchitis, bronchiectasis, or the stasis-catarrh of cardiac disease.

G. E. M.

A TEXT-BOOK OF MEDICAL CHEMISTRY AND TOXICOLOGY. By James W. Holland, M.D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College, Philadelphia. Third Revised Edition. Octavo of 551 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$2.00 net.

As a student of chemistry for more than forty years it gives me pleasure to take up for review the third edition of "Holland's Chemistry and Toxicology." I know of no book upon the subject which contains so much of service to both the medical student and the practitioner, as this book. The learned author well says "The medical student is supposed to have been instructed in Physics and in Elementary Chemistry," yet he wisely and succinctly presents the essentials of these, as well as Medical, Medical-legal, Physiological and Pathological Chemistry.

The part devoted to consideration of the Urine, is concise and complete.

That devoted to Toxicology presents not only a consideration of the substance, but its tests, decomposition products, the symptoms produced and antidotes. All this in such a concise form that the book is invaluable as a work of reference.

T. G. D.

CASE HISTORIES IN NEUROLOGY, a selection of histories setting forth the diagnosis, treatment and post-mortem findings in nervous diseases, by E. W. Taylor, A.M., M.D., Instructor in Neurology, Harvard Medical School; Assistant Physician, Department Neurology, Massachusetts General Hospital; Visiting Neurologist, Long Island Hospital, Boston. W. M. Leonard, Publisher, Boston, 1911.

This is the fourth of the case history series which brings post graduate instruction to the desk of the busy physician.

Next to seeing the cases themselves this method certainly gives the most

realistic picture possible of disease conditions. In the arrangement of text this book is exceptional. The nervous field is covered by a succession of well classified cases, making a compact work for ready reference.

It is divided into five sections, i. e., Peripheral Nerves; Spinal Cord; Brain; Conditions of Vague, or undetermined Pathological Basis; and Psychoneuroses.

Each section is preceded by a resume of diagnostic methods illustrated with diagrams and charts of neuronic systems just sufficient to give a clear idea of the case descriptions following. The histories are stripped of all verbiage not necessary to concise yet simple description and each one stands out as an entity. The discussions on differential diagnosis and observations on pathology accompanying each case are plain talks full of the meat of common sense. A little attentive reading of this work will clear up many perplexing problems in nervous diagnosis and treatment for the general practitioner. It is really a revelation in the possibilities of readily intelligible description in a field that is ordinarily almost a closed book to the family doctor.

C. L. B.

A MANUAL OF PRACTICE OF MEDICINE. By A. E. STEVENS, A.M., M.D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania, North Edition, Revised. 12 mo of 372 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Flexible Cover, \$1.75 net.

Here is a work that seems to keep the publishers busy, coming to us already in its ninth edition. In this edition a number of the chapters have been thoroughly rewritten, as for instance that of Acute Anterior Poliomyelitis, Rheumatic Fever and chapters on Pellagra, Sleeping Sickness, Acute Dilatation of the Stomach and various other subjects have been added.

In the preface to the first edition the author quotes Pope as saying, "Half



our knowledge we must snatch, not take."

As a work from which to snatch ideas and knowledge quickly, this volume holds a high place.

**THE PRACTITIONER'S VISITING LIST** for 1912. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

This is the second visiting list to come to the Southern California Practitioner's table for 1912. It has everything that it claims, and the fact that it has been

popular for twenty-eight years shows that it is what the profession wants. The tables and other valuable information are kept from year to year abreast with the times.

**NURSING IN THE ACUTE INFECTIOUS FEVERS.** By George P. Paul, M.D., Visiting Physician to the Samaritan Hospital, Troy, N. Y. Second Revised Edition, 12 mo. of 246 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1911. Cloth, \$1.00 net.

This very commendable little work has excellent chapters on Hygiene of the Sick Room, Reduction of Fevers, and one particularly good section on Diet of the Sick. In this chapter on Diet of the Sick, the nurse is told just what food to prepare for her patient and how to prepare it; not only how to prepare it to suit the case and be digestible, but also which is important, how to prepare it to be attractive and appetizing.

## ABSTRACTS

### FROM AMERICAN AND ENGLISH PUBLICATIONS.

ABSTRACTED BY J. EDGAR COLLIERAN, M.D., LOS ANGELES.

#### Kidney Opened by Silver Wire.

E. K. Cullen and Derge, in October S. G. & O., have an interesting article on the use of silver wire in opening the kidney. The comparative value of silver wire and knife are shown by a series of animal experiments, also 19 human cases from the clinics of Halsted, Kelly & T. S. Cullen. Their conclusions are as follows: In nephrotomy with the silver wire the following represent the main advantages of the wire incision over that of the knife, as obtained in our experiments:

1. The amount of bleeding at operation averaged only one-half that observed in the knife incision.

2. The bleeding was readily con-

trolled.

3. There was no post-operative hemorrhage.

4. The resultant infarct was much smaller.

#### End to End Anastomosis of Blood Vessels.

In *Annals of Surgery* for October, Ahrenfried and Boothby give the technique for end to end anastomosis of blood vessels with a brief history of the same. They give their experience with 45 animals developing this technique which is practically Carrel's. They give a complete list of their instruments and materials used in the operating. For needles they recommend number 6 Kirby sharps. Evidently this is a typographical error and should read number 16. They then give the following case where the technique is applied on a human.

T. G. Syrian was brought to the Re-

lief Station of the Boston City Hospital at 4:30 p. m., April 23, 1911, by a police ambulance, with the story that he had been stabbed in the left groin. He was conscious, restless and pale, pulse 80, of small volume and low tension.

Just below Poupart's ligament on the left was a narrow, somewhat pouting, clean-cut slit in the skin about three-quarters of an inch long, running nearly transversely. There was considerable blood on the thigh and the clothes covering the thigh. About the wound was some swelling. No pulsation in the femoral artery or its branches below this point was made out.

The thigh was cleaned and shaved. On the passing of a director into the wound, to ascertain where to introduce a wick, active arterial hemorrhage ensued. The wound was packed and a sterile dressing was applied with pressure. Heaters and blankets were ordered, and salt solution administered by rectum.

Patient was cold, restless and weak for two or three hours, but then became more quiet, stronger and warmer. There was no return of pulsation in the branches of the femoral artery. Operation was advised and accepted.

Operation, Drs. Crandon and Ehrenfried: Under ether an incision was made above and parallel to Poupart's ligament. The external iliac artery was found and a Crile clamp applied. An incision five inches long was made over and parallel to the femoral artery, the region of the punctured wound was laid open, and the dissection carried down to the femoral artery. This was found completely severed, though the ends were held together beneath by some strands of uncut adventitia. The surrounding tissues were infiltrated with blood-clot. The vein and nerve were intact.

Crile clamps were applied to the artery, the adventitia trimmed away, and

the ends sewed together by the technic just described. The clamps were taken off, and then the clamp on the iliac artery was removed. There was some oozing of blood from the anastomosis, which ceased in two minutes under light pressure. Pulsation was readily felt beyond the suture.

The abdominal wound was sewed up in layers, the thigh wound by mass sutures. Sterile dressing was applied. Stimulation, heaters and blankets.

The recovery was rapid and uneventful, despite the weakness of the patient from loss of blood. When seen the next day the left foot was warm, and on the day following pulsation of the dorsalis pedis could be readily made out, and heaters and blankets were discontinued. The temperature and pulse were normal on the fourth day, and remained so. On May 3 the stitches were removed, and on May 7 the patient went home, well except for a small granulating area at the site of the original wound.

We have applied this technic also in one case of transfusion, but without satisfaction. We consider the ordinary methods of transfusion, of which that of Elsberg is undoubtedly the best, more rapid and certain. The chief difficulties to suture in transfusion are the inequality in size of the vessels, their difference in texture and the possibilities of tension under which the operation is performed. There is no question, however, but that the Carrel method of end-to-end anastomosis has already made for itself an important place in operative surgery.

Janeway and Green, in September S. G. & O., give their experience with

#### Esophagoscopy and Gastroscopy.

They have made fifty examinations, but only consider 27 as worth recording. Of the number tabulated, 13 were lesions of the esophagus and 14 lesions of the stomach. Of

the esophageal lesions, two were cicatricial stenoses, both situated in the upper part of the esophagus, and 11 were epitheliomas, divided as follows: two in the upper third, five in the middle third, and three at the cardiac portion of the esophagus with obstructions in the lower third. One at autopsy proved to be a diffuse infiltration of a considerable length of the esophagus.

The stomach lesions, with two exceptions, were all carcinomas. In the case of one of the two exceptions the gastroscopic examinations showed a normal mucosa. While at operation a carcinoma was found involving the intestine. The second exception was a very interesting case. We were permitted to make two examinations. At the first examination a definite nodular ulcerated mass was discovered which was thought to be carcinoma, but the small piece removed for microscopical examination showed no malignancy. Subsequent to this examination the patient's condition improved materially, and at the second examination at the site of the previously discovered lesion an appearance resembling a cicatrized area was found, so that it was assumed that the patient had a healed ulcer. He left the hospital much improved.

The other 12 cases were all carcinomas. Two were situated near the pylorus and were missed entirely by the gastroscopic examination. Ten were limited entirely to, or involved in part, the cardiac portions of the stomach. All these growths were of considerable size. In all of these cases we were able to make a diagnosis.

This series is, of course, small, nevertheless we believe that it demonstrates or confirms the previous demonstration of a number of facts of some importance. The first of these facts concerns the amount of discomfort experienced

in a gastroscopic examination conducted under local anaesthesia alone. If it is, in order to make a gastroscopic examination, the procedure will not prove so valuable. Though a gastroscopic examination conducted under a general anaesthesia is less objectionable from the standpoint of the patient than an exploratory laparotomy, yet it becomes at once a far more radical step to which the consent of the patient must be asked than the same examination under local anaesthesia. We have relied in the examinations which we have made entirely upon a hypodermic injection of one-fourth of a grain of morphine, and by mouth five grains of anaesthesin, and finally a thorough anaesthetization of the pharynx with a ten per cent. solution of cocaine.

#### **Appendicitis with Vesical Symptoms.**

Schmidt, in G. S. & O. for September, presents a series of unusual cases with pathological conditions outside of the bladder, probably appendical abscesses, causing marked vesical symptoms. This paper was of special interest to the abstracter, having had one patient, an actor, a few months ago, similar to those described by Dr. Schmidt. Another case I saw in a consultation today. Schmidt's cases were men. The patient I saw today was a woman.

This group of cases presented, as its cardinal points, signs similar to conditions of and symptoms chiefly referable to, the urinary tract. In all instances the urine was negative. The symptoms were chiefly desire to urinate, frequency, associated with tenesmus and pain. In all instances a rounded tumor mass could be seen and felt in the supra-public region, and rectal examination showed a mass which apparently pushed the prostate, seminal vesicles and bladder downward and backward, and seemed to be, from the shape of the mass, extraperitoneal and attached to the bladder. With bi-



manual palpation, i. e., with balottement, fluid was positively diagnosed in several instances. With catheterization and emptying of the bladder, the mass was scarcely changed in size, and fluid remained present. For this reason cystoscopy became necessary in order to exclude at once certain conditions.

The gastro-intestinal symptoms were of an insignificant kind, so mild as not to attract the attention of the patient at the time when the urinary symptoms were present. However, previous to the onset of the urinary symptoms all complained of frequent watery bowel movements. In several instances there had at first been constipation. Later, in several instances, when the tumor swelling persisted, anal tenismus set in in connection with the urinary symptoms.

To emphasize the cardinal symptoms shortly after the onset were certainly urinary in character. No marked general symptoms were present at any time, except in the boy, and in the case of the old man, and then only following the perforation or rupture of the abscess.

There can be no question, I believe, that those who treat surgically intra-abdominal and intrapelvic diseases still recognize the possibilities of error in diagnosis. This series of cases, I believe, can be classified as of appendical origin or as cases of atypical appendicitis with abscess.

As this entire group comprises only patients of the male sex, a large number of conditions which could occur in women can at once be excluded. However, in the differential diagnosis a number of conditions must be taken into consideration.

His conclusions are as follows:

1. That tumors taking on the characteristic shape of a filled bladder may be intraperitoneal, walled-off abscesses, probably of appendical origin.

2. That two of the cases which were operated upon from above gave considerable cause for worry, as the post-operative courses were long and distressing, while the two cases operated upon from below had rapid and uneventful recoveries.

From this and from the case that came to postmortem, and also from the case in which the abscess ruptured spontaneously into the rectum, I am inclined to believe that these are a class of cases which can be operated upon in the manner described, by the perineal route.

#### Skiagraphy of the Ureter.

In the same paper Schmidt & Kretschner, in a classical article on the Topography of the Ureter as determined by the shadowgraph catheter, well arrived at the following conclusions:

1. When judging a skiagram, it is impossible, on account of the great variability of the course of the ureter, to state whether or not a given shadow is in the course of the ureter unless the x-ray picture is taken with a shadowgraph catheter in the ureter.

2. Examination with fuse wire catheters, employed in this series of cases, is superior to other methods for determining the topography of the ureter throughout its entire course.

3. The atypical courses of the ureter, as shown above, emphasizes the importance of bearing such anomalies in mind, particularly during any operative procedures on the ureter or organs in close proximity to it.

4. This may also explain at least in part the ease with which the ureter is injured during operations on neighboring organs.

#### Etiology of Appendicitis.

Robertson, in *Surgery, Gynecology and Obstetrics* for October, in his article entitled "Concerning the Etiology of Appendicitis," says a close and

careful investigation of the subject has lead him to a positive conclusion as to the exact etiology of the disease. He then describes in detail the minute anatomy of the appendix and gives as the reason for the infrequency of the disease in women as compared with men, which is in a proportion of two women to three men, being due to the occasional small branches of the ovarian artery which traverses the appendiculo-ovarian ligament. He sums up his paper with the following conclusions. From the foregoing study the following conclusions may be definitely drawn:

1. The muscles of the colon and appendix are entity.

2. Muscular contraction in the colon and cecum, whether of the circular fibers or of the longitudinal bands, must be associated with a simultaneous contraction of the muscular walls of the appendix.

3. This contraction is induced by nerve stimulation, the stimulant being presented by the various tabulated predisposing factors as enunciated by many observers, all of which can be accounted for in this one general cause.

4. While the normal muscular contraction and relaxation of the appendix act only to support circulation, when spasmodic in nature it overdoes the matter and produces vascular disturbances.

5. Owing to the peculiar anatomic structure of the appendix, all that tissue within the circular muscle fibers, being spongy in nature, becomes during the abnormal contraction a veritable dam in which the blood is retained until released by the subsidence of the spasm.

6. According to the intensity of the spasm will depend the degree of mucous membrane varicosity and edema, and thus will be determined the varying degrees of inflammatory action.

7. If the spasm be of the mildest degree only, then appendicular colic will result; if of the maximum intensity, gangrene will follow.

8. It may, therefore, be concluded that atrophy, degeneration, hyperemia, congestion, hyperplasia of connective tissue and thrombus formation occur **before**, and not **after**, bacterial invasion of the walls of the appendix.

# GERMAN PUBLICATIONS ON MEDICINE AND SURGERY.

ABSTRACTED AND TRANSLATED BY  
HENRY H. LISSNER, M.D.,  
LOS ANGELES.

M. M. W. NO. 37—1954, PRIV. DOCENT,  
DR. ARTHUR WEBER.

• **Heart Kinematographie:** Weber gives his method of photographing the heart in action, pointing out the difficulties of the procedure and discusses the practical applicability of the method. The object of the series of photos is to enable one to study the form and change of position of the heart during a single heart cycle.

The difficulties of the procedure are the small movement of the heart during systole, as has been demonstrated by Moritz with the ortho diagraph, and the influence of the diaphragmatic movement on the position of the heart, which he claims has greater influence than systole and diastole. It was not possible to have the patients hold their breath sufficiently long to eliminate this error, even though the taking of a series of five pictures occupied only three seconds.

NO. 36—M. M. W.

**Therapy of Carcinoma—**Dr. Varzenz Czerny. Czerny says in part that early radical operation of a malignant tumor must be placed at the head of all other therapeutic means in the treatment, still there are other methods which may insure a more radical removal and with them greater certainty of ultimate cure.

It has been shown that certain artificially produced tumors in rats and mice have disappeared without any intervention whatsoever, or that they have, under various influences, been reduced without much difficulty. Such observations on the human are much more rare even though cures have been recorded following incomplete removal.

The fact has long been known that owing to fatty degeneration and resorption, certain carcinomata take on schirrous formation and that in submaxillary lymph gland metastasis of epithelial carcinoma, this liquefaction is so complete that following the primary incision nothing remains but the capsule which enclosed the gland and in which nests of carcinoma cells are still present. The increase of leucocytes about a carcinomatous area probably means a high malignancy and is brought about by irritating substances which exert a positive chemotactic influence upon them.

The combination of inflammation and cell development is in most part bad for the organism. Occasionally we find that an erysipelatous inflammation has a beneficial influence in sarcoma; more seldom in carcinoma. New impetus in treatment was stimulated through the use of the X-Ray and radio active substances. The disappearance of the tumor following the Radio therapy takes place through inflammation, necrosis, liquefaction and resorption. Tumors, which, through radio therapy, had become much smaller, were removed and examined under the microscope, but no cause for the shrinking could be determined.

Czerny discusses the value of the X-Ray in the treatment of superficial and deep carcinomata, with various strength of tubes, strong, soft and medium soft tubes. He has seen large tumors diminish in size so that only a small nodule remained which resisted further treat-

ment and which remained stationary for a period of time or after a short interval became alarmingly active and eventually caused the death of the patient. Permanent cures cannot be expected from X-Ray therapy.

The same may be said of radio active substances—Radium, Thor and Actinium—which differ only in the amount of radio-active substances given off in a given time. The method of application has been changed; where formerly the radio-active substances were placed in capsules for the treatment of the more superficial and less deep carcinomata, they are now placed in small metal tubes, which are buried in the wound following operative interference, the object being to influence cell liquefaction and necrosis of such tumor cells which may have escaped the surgeon's knife. These same tubes of radium have been screwed on to oesophageal sounds and passed into the stomach for the treatment of carcinoma of both these organs.

Owing to the fact that in certain forms of carcinomata spirillae were seen, and also that the Wasseman reaction was present in some patients, a course of treatment with Salvarsan was inaugurated. The treatment consisted in two or three intravenous injections of 0.3 every two or three weeks. In the tumor itself, 0.1 of a neutralized watery solution was used until a dose of 1.5 had been reached, this to supplant the intravenous injections because no improvement was noted by its use. The Salvarsan injected into the tumor has the advantage of causing it to respond more readily to electrical treatment. The entire effect of Salvarsan on true carcinoma was unsatisfactory.

In discussing the effect of electricity and its use in the treatment, Czerny mentions Fulguration and Electric cauterization and Diathermie. In the latter the current and spark of the wire-



less telegraph are used with excellent results, not that they cure cases otherwise inoperable, but that they place a healthy granulating surface at the disposal of the surgeon and bring the greatest amount of comfort to the patient, which, after all, is what the surgeon must strive for. The electrode using these currents does not become red and so has been called the cold cautery. He who has followed these studies will see at once that the question has become complicated, but that the sunrise of the morrow glows upon a brighter future for the treatment of this terrible disease.

M. M. W. OCT. 17—P. 2213. PRIVATE DOCTOR—DR. BITTORF.

**Is there a Hyper-secretion of the Supra Renal Bodies in Diabetis Mellitus?** Dr. Bittdorf says in part: "If the increase of sugar in Diabetis Mellitus is due to an increase secretion of these bodies, then one must find an increase of adrenalin in the blood of Diabetics. (G. Bayer.) The most satisfactory method for the estimation of adrenalin is the Meltzer-Ehrmann, i. e., the points of error are fewest by this method.

Experiments by Loewit, Watermann and Smit, Falta and Priestley, on the pupil of the frog are quoted.

The author has experimented upon the frog's pupil with the blood serum undiluted, of ten diabetics. These cases were not selected, but were in various stages of the disease. One had 0.5 sugar. Acidosis was present in three cases. In all seven cases without acidosis there was no dilatation of the pupil. In these cases was included the case where there was a high percentage of sugar; this case came to autopsy and it was found that there existed a marked atrophy of the Pancreas; in this case it was to be expected that a marked hyper function of the Supra renal bodies should be present. Following various experiments the conclusion was arrived at that there is no proof of the increase of adrenalin in the blood of Diabetics. Borking and Trendelenberg have shown by work on four cases that rather than an increase there is a decrease in the adrenalin of the blood. His conclusion is that in Diabetis Mellitus an over-function of the adrenal bodies is not to be considered.

## THERAPEUTICAL HINTS

### TREATMENT OF TETANUS.

One hundred years ago J. Harkness, Esq., surgeon, of Ratcliff, published a case of traumatic trismus which, in consultation with Dr. Thomas' Blizard, surgeon to the London hospital, he treated successfully with an average daily dose of one fluid ounce of tincture of opium, forty grains of calomel, fifty-one grains of gamboge, two bottles of wine and six pints of porter. "Under this mode of treatment," says the daring prescriber, "symptoms of amendment soon began to show themselves, inasmuch that in three or four days the patient was able to open

his mouth tolerably well." By the time the treatment was complete the patient had taken a total of 485 grains of calomel, 825 grains of gamboge, 204 drachms of laudanum, fifty-eight bottles of wine and 191 pints of porter. A Dr. John Parkinson, surgeon, was so impressed by the report of this case that on June 18, 1811, he presented one of a lady who was attacked with trismus three weeks after a fracture of a leg. She was ordered a drachm of laudanum every hour and a powder, containing six grains of calomel and a scruple of jalap and scammony, every two hours. The dose of

opium was slowly reduced and in five weeks' time the lady was completely restored.

We have no reason to doubt the accuracy of the reports of the worthy surgeons of a century ago, such a powerful combination of narcotics and cathartic artillery should discourage any germ, even the recalcitrant bacillus tetani; our professional forbears, guided solely by their national empiricism, obtained many a brilliant victory by what was apparently sheer fearlessness in the handling of their primitive weapons.

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*The Alienist and Neurologist.*

## CALIFORNIA HOSPITAL ALUMNAE NOTES

A very interesting meeting of the Association was held at the Directory Rooms, November 27. A revision of the Constitution and By-Laws was unanimously adopted.

The names of three applicants for membership were read and referred to

the membership committee and various other items of business attended to.

The members present expressed deep sympathy for Dr. Lindley because of his recent accident and flowers and a note of sympathy were sent to him.

Miss Maude Hammett, '10, left the California Hospital November 27, after

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having been there three weeks as a patient.

One of the recent post graduates, Miss Macomber, was also a patient in the hospital for about the same length of time. How glad we would all be to have an endowed bed for sick nurses. It is surely needed and would be much appreciated.

Miss Dora Graves, '04, Superintendent of the Ventura County Hospital, has been in Los Angeles for a few weeks with a sick friend, but returns to her post this week.

Mayor Alexander delighted the nurses in training in the California Hospital by a short address made to them at noon of November 29 in the dining hall at the hospital. The girls appreciated his visit very much and hope he will come again after he is re-elected Mayor of Los Angeles.

Miss Mildred Nichols, '09, has resigned from her position as Assistant Superintendent of the California Hospital and will do private nursing.

Dr. Clarence Wardell, husband of Mrs. Ruth Arnold Wardell, '06, was instantly killed in an automobile accident November 19, near Portland, Oregon. We extend our sincere sympathy to Mrs. Wardell.

Born at the California Hospital, September 23, to Mr. and Mrs. Charles Browning of Inglewood, a son, Hatzell Charles Browning. Mrs. Browning was Lillian Hatzell, '04.

Born October 6, at Long Beach, to Dr. and Mrs. J. C. Burton of Hermosillo, Mexico, a daughter, Katherine Burton. Mrs. Burton was Miss Sue Miller, '07.

Miss Morris, '10, has accepted a position in the Calumet and Arizona Hospital at Bisbee, Arizona.

Mrs. Della Ensign has accepted a position as Superintendent of the United Verde Hospital at Jerome, Arizona, and is much pleased with the work there.

Cards have been received announcing the marriage of Miss Gertrude Brinkerhoff, '09, to Mr. Stephen Rutherford, November 15, 1911. Mr. and Mrs. Rutherford will make their home in Santa Barbara.

Miss J. J. Murray, '11, has given up her position as head nurse in the hospital and expects to do private nursing in the city.

We were glad to welcome the following members of the class of '11 into the Alumnae Association last month: Misses Palm, Murray, Sharp, Shaw, Carrie Johnson, and Mrs. Miller and Mrs. Gray. We hope the entire class will soon be members of the Association.

The nurses of the California Hospital were very glad to see Dr. Lindley in the dining room again the day before Thanksgiving, his first appearance there since his arm was broken several weeks ago.

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## QUESTIONS OF THE STATE BOARD OF MEDICAL EXAMINERS, LOS ANGELES, DECEMBER 6, 7, 8, 9, 1011.

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### PATHOLOGY.

Answer Eight Questions Only and Identify Four Slides.

1. Describe the difference between hypertrophy and hyperplasia, and under what circumstances does each occur.

2. Name five hemolytic substances.

3. In what way do the histologic changes found in cloudy swelling of the heart differ from those found in fatty degeneration of the heart?

4. What structural or organic changes are most likely to be responsible for constant and excessive irregularity in the heart's



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action extending over a prolonged period of time?

5. Describe the heart changes which frequently accompany croupous (Lobar) pneumonia.

6. Describe the condition present in hypostatic congestion of the lungs and under what circumstances is it most likely to occur.

7. Locate and describe the pathologic changes which occur in acute bulbar paralysis and name the most common causes.

8. Describe the condition of the patient and the morbid anatomy likely to be found during the first few hours in a case of thrombus of the middle cerebral artery on the left side and the condition of the patient likely to be found in a favorable case at the end of several weeks.

9. What form of nephritis is most likely to accompany or follow a severe attack of scarlet fever and describe the pathologic changes most likely to be found in the kidney.

10. In what way do the changes found in the thyroid gland in exophthalmic goiter differ from those found in the more harmless or benign forms of goiter?

11. Identify two slides.

12. Identify two slides.

## HISTOLOGY.

Answer Eight Questions Only.

1. What histological characteristics would enable you to distinguish a transverse section of the duodenum from a like section from the cardiac end of the stomach? Make drawings.

2. Describe a cerebro-spinal nerve fibre and tell how it differs from the sympathetic nerve fibre. Make drawings.

3. Name the primary blastodermic layers from which each of the following structures are developed: (a) Retina; (b) heart muscle; (c) hair; (d) cerebellum; (e) liver cells; (f) tendons; (g) secreting cells of pancreas; (h) voluntary muscle fibres; (i) Epithelium of bladder; (j) lining cells of pleura.

4. Make a drawing of a transverse section of the spinal cord—showing principal motor cell groups—white and gray matter and the various tracts in the former.

5. In what respect do bronchioles differ from the bronchi of medium size? Make drawing of the latter.

6. What microscopic structural differences would enable you to distinguish a section made perpendicularly to the surface of the ventricle of the heart from a like section from the uterus?

7. Trace the course of the uriniferous tubule in the kidney—name its divisions and the characteristics of each portion.

8. (a) How do medium-sized arteries differ histologically from the great arterial trunks? (b) Illustrate by means of diagrams or drawings.

9. (a) Name the three membranes covering the brain and spinal cord. (b) Which contains the most fibro-elastic tissue? (c) Which is best supplied with blood vessels? (d) Which contains neither nerves nor blood vessels?

10. What feature would enable you to recognize a section of (a) spleen, (b) cerebellum, (c) suprarenal gland, (d) thyroid gland, (e) cerebrum. Make drawings or sketch of each.

11. Identify two specimens.

12. Identify two specimens.

#### ANATOMY.

Answer Ten Questions Only.

1. Name the muscles concerned in each of the various movements of the shoulder joint.

2. Give the relations of the inferior vena cava.

3. What structures would be cut by a cross section through the fourth dorsal vertebrae?

4. Describe the deep cervical fascia.

5. Describe the internal or inferior calcaneo scaphoid ligament.

6. Give the origin of the cochlear and vestibular nerves.

7. Discuss the excretory apparatus of the liver.

8. Describe the conditions tending to minimize the effects of violence upon the spinal column. (b) What portions of the spinal column are most subject to injury? Why?

9. Describe the spermatic veins. Why are they particularly liable to become varicose?

10. Describe the arrangement of the essential structures comprising the gray substance of the spinal cord. (b) Same for the white substance.

11. Outline or describe the surface markings of the heart on the anterior chest wall and give position of the various orifices. (b) Locate the area of superficial cardiac dullness, also the area of deep cardiac dullness.

12. Describe the superior cervical ganglion. (b) Give its relations.

#### BACTERIOLOGY.

Answer Ten Questions Only.

1. Name two bacilli resembling tubercle bacillus, and explain in detail how you would differentiate the three.

2. In a suspected case of typhoid fever (second week), how would you make a bacteriological diagnosis?

3. How is Tuberculin C used to diagnose tuberculosis? Give three methods.

4. Describe three ways in which bacteria propagate.

5. What is meant by anaphylaxis?

6. What produces erysipelas, epidemic cerebro-spinal meningitis, carbuncle, elephantiasis, Malta fever?

7. In a case of suspected tuberculosis of the kidney, how would you confirm the diagnosis?

8. Draw pictures of magnified cholera bacilli, diphtheria bacilli, diplococcus catarrhalis, sarcinae ventriculae, entameba histolytica.

9. How is the diagnosis of rabies made in the dog? Where is the infectious material found?

10. Discuss the bacillus pyocyaneus.

11. What is the object of using diphtheria antitoxine in a case of diphtheria, instead of diphtheria vaccine?

12. Explain how the bacillus tetani act after introduction into the system through a punctured wound. What kills the patient?

#### CHEMISTRY AND TOXICOLOGY.

Answer Ten Questions Only.

1. In what forms does  $Al_2O_3$  occur naturally?

2. Name and describe the allotropic forms of carbon.

3. Give two methods for making glucose. Demonstrate by formula the action of yeast on glucose.

4. How may oxalic acid be distinguished from magnesium sulphate?

5. What are the constituents of olive oil and how would you separate them?

6. What will result when a mixture of lead oxide and stearin is heated? Explain.

7. Give a method for the quantitative determination of the decomposition of proteins in the body.

8. Give the tests for phenol poisoning.

9. Discuss poisoning by carbon monoxide.

10. Name twenty poisons which may cause sudden death.

11. Define and discuss the "corpus delicti" of toxicology.

12. Classify and name the tonic agents which may cause insanity.

#### GYNECOLOGY.

Answer Ten Questions Only.

1. Coccygodynia, definition, causes and symptoms.

2. Differential Diagnosis, Hydronephrosis and Ovarian cyst.

3. What are the most common pathological results of complete laceration of the perineum?

4. Anatomy of the perineum and its functions.

5. Differentiate Eczema and Herpes of the Vulva.

6. Methods of exploration of the Urethra, Bladder and Ureters for diagnosis.

7. Cancer of the Bladder, diagnosis and symptoms.

8. Pregnancy complicating Carcinoma of the Uterus, diagnosis, what would be your advice, why?

9. Differentiate pelvic peritonitis, cellulitis, salpingitis.

10. Define the terms Thrombosis, Phlebitis and symptoms of each.

11. Atrophy of the Uterus, etiology and symptoms.

12. Disorders of Menstruation. Name three of the most common and symptoms.

#### HYGIENE.

Answer Ten Questions Only.

1. What effect has altitude (4000 to 8000 feet) upon the normal? Upon the diseased?

2. Name at least three resorts for the tuberculous in Arizona or California (in either or both) and give some of the advantageous characteristics of each.

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3. Give your opinion as to the advantages and disadvantages of sleeping out of doors. Describe in detail one or two methods of providing for sleeping out of doors off the second floor of a city dwelling.

4. What are the benefits of a cold plunge bath on rising? By whom should it be avoided? What should be the temperature (Fahrenheit) of a hot bath? Temperature of a tepid bath?

5. In the warfare against the typhoid fly, what is a good method of destroying maggots in horse manure without destroying the fertilizing value or removing the manure?

6. Name five benefits derived from medical inspection of schools.

7. How many cubic feet of air space should there be for each child in a school room?

8. Describe the Etiology of Malaria.

9. Why are the arid plains and mountains of California, Arizona and New Mexico beneficial to many cases of tuberculosis?

10. Describe sterilization of milk. When would you use this method? Describe Pasteurization of milk. When would you use this method?

11. In what portion of the external auditory canal is cerumen secreted? When the accumulation of ear wax is excessive, what should be the method of removal?

12. What are the objections to washing the teeth over stationary wash basin in Pullman car or hotel?

#### PHYSIOLOGY

Answer Ten Questions Only.

1. What are the distinctive phenomena which characterize the contraction of non-striated muscle?

2. What evidence of fatigue do nerve fibers exhibit?

3. Describe the tonic activity of the spinal cord.

4. Discuss the Pain sense.

5. (a) What are the general conditions which influence blood-pressure and blood-velocity?

(b) How does the rate of the heart beat vary according to sex, size and age?

6. Discuss the nature of the action of vaso-dilator nerves.

7. Describe the circulation of the lymph.

8. What is the origin of the negative pressure in the thorax?

9. How are carbohydrates absorbed from the intestinal cavity?

10. When the chyme enters the intestine, to what new conditions is it subjected?

11. What evidence is there which seems to indicate that the pancreas has an important internal secretion?

12. How is the loss of heat regulated by the body?

#### OBSTETRICS

Answer Ten Questions Only.

1. What do you understand by the following named diameters of foetal head. Occipito-frontal; Occipito-mental and fronto-mental, giving their measurements?

2. Describe the conditions of the pelvis that you consider indicate the induction of premature labor?

3. In abortion with retained secundines and infection, will you kindly discuss the

matter of curettement from the standpoint of early or late operation? If the case came to you late, what would you do?

4. In abortion with retained secundines and infection, what form of infection counter-indicates curettement and why?

5. Describe the proper management of the breasts (a) Before labor. (b) After labor when child is still born?

6. How would you determine between puerperal sepsis and other inter-current fevers?

7. What would be the symptoms of an intramural fibroid of uterus and how may it complicate the diagnosis of pregnancy in early stage?

8. What are the diseases most common to the foetus in utero?

9. What is the function of the chorion?

10. What do you understand by the operation of embryotomy?

11. How would you tell the difference between a first and subsequent pregnancy?

12. How would you make a diagnosis between vertex and breech presentation?

#### GENERAL DIAGNOSIS.

Answer Ten Questions Only.

1. Name the white blood cells and give the diagnostic value of each.

2. Describe Interstitial Nephritis.

3. Give the symptoms and signs of empyaema.

4. Differentiate a dorsal dislocation of the hip from a fracture of the neck of the femur.

5. Describe the symptoms and signs indicating a cerebral hemorrhage following an injury to the head.

6. Give the causes of hematuria and give the symptoms upon which you would base a diagnosis of renal tuberculosis.

7. Give the symptoms and signs of hyperthyroidism.

8. Name the causes of splenic enlargement and describe spleno Myelogenous Leukaemia.

9. What are the percussion findings in (a) Emphysema of the lungs. (b) Beginning pulmonary tuberculosis. (c) Pleurisy with effusion. (d) Aortic insufficiency in the stage of failing compensation. (e) Pneumohydrothorax.

10. Describe the Adams-Stokes syndrome.

11. Describe Psoriasis.

12. Give the signs and symptoms of gastric ulcer.

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My Dear Doctor:--

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(The first day of the Los Angeles meeting of the A. M. A.)

From *The Los Angeles Daily Times* June 27, 1911.

